BY ORDER OF THE COMMANDER
42 AIR BASE WING (AETC)

MAXWELL AFB INSTRUCTION 15-101

11 JULY 2016

Weather

WEATHER SUPPORT

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This instruction implements AFI 15-128, *Air Force Weather Roles and Responsibilities*; and AFMAN 15-129 Vol 1, *Air and Space Weather Operations – Characterization*, and Vol 2, *Air and Space Weather Operations – Exploitation*. It also addresses HQ USAF Program Action Directive (PAD) 97-10, *Reengineered Action for Air Force Weather*, and Air Force Policy Directive (AFPD) 15-1, *Atmospheric and Space Environmental Support*. It outlines weather service provided by 42 OSS/OSW to support the 42 ABW and all tenant organizations on Maxwell AFB and establishes the responsibilities and procedures for providing and using weather services. Waivers to this publication are not authorized. Send comments and suggested improvements to this instruction on AF Form 847, *Recommendation for Change of Publication*, through channels to 42 OSS/OSW, 220 W. Ash St., Maxwell Air Force Base, AL 36112. It applies to all agencies described herein, to include the 908th Airlift Wing (AF Res); it does not apply to the ANG. Ensure that all records created as a result of processes prescribed in this publication are maintained in accordance with Air Force Manual (AFMAN) 33-363, *Management of Records*, and disposed of in accordance with the Air Force Records Information Management System (AFRIMS) Records Disposition Schedule (RDS) located at **https://www.my.af.mil/afrims/afrims/afrims/rims/cfm**. The use of the name or mark of any specific manufacturer, commercial product, commodity, or service in this publication does not imply endorsement by the Air Force.

SUMMARY OF CHANGES

This update significantly revises MAXWELLAFBI 15-101. The reference to the lightning light is removed and special criteria added. The requirement for a physical training forecast is removed. Several tables have been changed or updated.

Chapter 1

GENERAL INFORMATION

1.1. General.

1.1.1. 42 OSS/OSW, henceforth referred to as Maxwell Weather, is the focal point for all weather related issues on Maxwell AFB. Maxwell Weather provides or arranges for routine and specialized weather support to the 42 Air Base Wing (ABW) and all mission partners on Maxwell AFB in accordance with this instruction and applicable directives.

1.1.2. Changes in requirements and support capabilities will be reflected in this instruction. Maxwell Weather conducts an annual review of this instruction.

1.1.3. According to AFI 15-128, Air Force Weather Roles and Responsibilities, the Operational Weather Squadron (OWS) will provide resource protection, terminal aerodrome forecasts, regional and operational-level weather products and information, meteorological watch (METWATCH), Pilot-to-Metro Service (PMSV), and flight weather briefing support for Air Force locations within designated geographic regions. The 26 OWS at Barksdale AFB provides this support for Maxwell AFB.

1.1.4. Maxwell Weather will focus on providing tactical-level weather products and information needed for mission execution.

1.2. Maxwell Weather Mission. Maxwell Weather is organized, trained, and equipped to conduct weather operations in order to provide timely, accurate, and relevant weather information and products to support the 42 ABW and all mission partners on Maxwell AFB. More specifically, Maxwell Weather will take and disseminate all required surface weather observations to include all prescribed elements to local customers over the Joint Environmental Toolkit (JET); collaborate with the 26 OWS in producing and disseminating weather watches, warnings, and advisories; provide Mission Weather Products (MWP) and flight weather briefings for local and transient aircrews, conduct MISSIONWATCH for these forecasts; and act as "eyes forward" for the 26 OWS.

1.3. Assumptions.

1.3.1. This instruction consolidates weather support capabilities and procedures for peacetime operations. It does not cover special or wartime operations

1.3.2. This instruction constitutes agreements for weather service at the local level; and publication is in lieu of Letters of Agreement, Memorandums of Agreement (MOA), and Memorandums of Understanding between Maxwell Weather and supported organizations.

1.4. Operational Constraints. Maxwell Weather will provide weather information based on data received from the Air Force Weather Agency (557 WW), the 26 OWS and the National Weather Service (NWS). The extent of Maxwell Weather operational capabilities depends on the 557 WW, 26 OWS, and NWS remaining operational.

1.5. Shortfalls and Limiting Factors.

1.5.1. The ability of Maxwell Weather to perform its mission is dependent on the number of personnel available and communication capabilities. During peak hours or severe weather

conditions, weather briefings conducted out of office may become impracticable due to manning. Discuss alternate methods with Maxwell Weather.

1.5.2. The official point of observation for manual observations is located approximately 20 feet from the northwest corner of Building 844. The field of view from this location is significantly limited due to buildings and trees on base. Specifically, the field of view is limited to less than 1/4 mile from 080 – 170 degrees, approximately 1/4 mile from 170 – 230 degrees, 1/4 mile from 260 – 290 degrees, and 1/4 to 1/2 mile from 300 – 080 degrees. Only a small section of the central part of the runway is visible from 230 – 260 degrees. In addition, high-intensity lights on the flight line limit the ability to determine visibility, cloud amounts, and cloud heights at night. The point of observation for automated observations is at the sensor group near the approach end of runway 15. There are no limitations at this site.

1.5.3. Only the approach end of runway 15 has weather sensors; however, 15 end sensors represent non-precision approach landing data on the 33 end.

1.6. Maxwell Weather Operating Hours. Weather services are available from 0800 CT to 2200 CT, Monday through Friday and 1000 CT to 1800 CT on weekends. Maxwell Weather closes on federal holidays. Weather will open early and/or close late to support distinguished visitors and other high level missions. Weather personnel will be on duty when operationally significant weather is occurring.

1.7. Maxwell Weather Duty Priorities. Maxwell Weather duty priorities listed in Table 1.1. exist to balance manning and mission critical tasks. Duty priorities focus efforts during peak work periods prone to task saturation and priority conflicts. Weather forecasters use good judgment in complying with these duty priorities, especially during imminent danger to life and property weather.

1.8. Contact Information. Contact information is contained in Figure 1.1.

Figure 1.1. Contact Information.

Forecaster Phone – 953-2071/3097
Fax – 953-5164
Weather Manager Phone – 953-3868
Assistant Weather Manager Phone – 953-7576
Pilot-to-Metro-Service Radio (UHF) – 342.3

Table 1.1. Maxwell Weather Duty Priority Listing.

Order Of Priority	Duties
1	Perform emergency war order taskings
2	Execute weather station evacuation
3	Respond to aircraft/ground emergencies
4	Respond to Pilot to Metro Service (PMSV) Contacts
5	Provide weather information to 357 AS Duty Officer/NCO
6	Augment automated surface weather obs for mandatory parameters (See Note)
7	Provide Eyes Forward / Collaborate with 26 OWS in issuing weather warnings, watches, and advisories
8	Conduct Severe Weather Action Procedure (SWAP) Operations
9	Coordinate TAF and amendments with 26 OWS (prepare and issue TAF if 26 OWS is unable) (See Note)
10	Relay PIREPS to 26 OWS
11	Disseminate PIREPs (See Note)
12	Perform MISSIONWATCH
13	Provide 357 AS MWPs and flight weather briefings for the 357 AS and CAP-USAF
14	Provide other briefings and forecasts
NOTE: During JET outages, the forecaster will call local users to pass observations, TAF, PIREPs etc., before calling the 26 OWS for longline transmissions.	

1.9. Disseminating Weather Products.

1.9.1. JET is the primary dissemination system for surface weather observations, terminal aerodrome forecasts, weather watches, weather warnings, weather advisories, and pilot reports on Maxwell AFB. All agencies on Maxwell AFB requiring this data on a consistent basis will request a JET user account from Maxwell Weather and monitor JET online when needed.

1.9.2. When JET is not working, Maxwell Weather will disseminate products via phone or email, using the following priority: Maxwell Tower, Maxwell Command Post (during flying operations), airfield management operations, and OTS/OCC.

Chapter 2

RESPONSIBILITIES

2.1. The 26th Operational Weather Squadron (26 OWS). The 26 OWS will perform the OWS responsibilities stated in AFI 15-128, AFMAN 15-129 Vols 1 and 2, and the Maxwell Data Installation Sheet.

2.2. Maxwell Weather. Maxwell Weather will:

2.2.1. Coordinate requests for briefing support with the 26 OWS on larger operations when Maxwell Weather cannot provide exploitation products to Maxwell AFB due to manning.

2.2.2. Provide flight weather briefings to CAP-USAF members, during normal duty hours, performing official Air Force missions. CAP-USAF members performing official flight duties outside of normal operating hours may obtain remote briefing capabilities (i.e., through the 26 OWS).

2.2.3. Provide service IAW posted duty priorities for walk-in requests from transient aircrews. When transient or staged aircrews request briefing support, Maxwell Weather will:

2.2.3.1. Provide a briefing or update an existing briefing form as time and resources allow. **EXCEPTION:** Refer flight weather briefing requests for AMC, USAFE, and PACAF integrated flight-management (IFM) missions to the appropriate IFM weather support agency (e.g. 618 AOC (TACC)/XOW, 21 OWS, and 17 OWS respectively). Maxwell Weather may provide access to meteorological satellite imagery, take off data, and other perishable weather data for IFM crews upon request

2.2.3.2. If unable to provide a briefing or update an existing briefing, provide contact information for the 26 OWS and direct the aircrew to Airfield Management-provided terminals for online access to weather support. Assist aircrew as time permits.

2.2.4. Relay pertinent information to the 26 OWS concerning changing local conditions that significantly diverge from forecasted conditions, especially affecting resource protection or the TAF.

2.2.5. Incorporate the MIRF and RIRF managed by the 26 OWS into qualification and continuation training. Maxwell Weather will contribute pertinent METSAT imagery or radar signatures of training value to the 26 OWS for consideration and inclusion into the MIRF/RIRF.

2.2.6. Identify local or fine scale influences on weather parameters yielding empirical evidence that may support establishment of a Rule of Thumb (ROT) for Maxwell AFB. These will be identified as observed and passed on to the 26 OWS for validation. The Maxwell Weather role will not exceed gathering and furnishing information.

2.2.7. Conduct seasonal continuation training, at least quarterly, concentrating on environmental threats to operations associated with the upcoming season. Training should focus on environmental sensitivity thresholds pertinent to DoD full-spectrum operations including, but not limited to, supported weapons systems, platforms, mission profiles, and ORM processes. Maxwell Weather leverages seasonal training material from the 26 OWS.

2.2.8. To ensure the most current Forecast Reference Materials (FRM) are on file, Maxwell Weather will forward newly created or updated documents to the 26 OWS.

2.2.9. Forward ROTs to the 26 OWS for validation and documentation of forecast effectiveness. Designate ROTs under development as experimental‖ in local procedures and OWS-maintained FRMs until validated.

2.2.10. Review installation data pages within 90 days of assignment or annually, whichever occurs first; to ensure consistency with supported unit requirements. Updated/reviewed installation data pages will have the date of review or updated publication date on the document. Maxwell Weather leadership will inform the 26 OWS of any changes that occur on the installation to update their installation data page. Any support issue between the 26 OWS and Maxwell Weather that cannot be resolved at the appropriate subordinate levels through the chain of command will be elevated to the functional higher headquarters for resolution.

2.2.11. Provide feedback to the 26 OWS on the accuracy, timeliness and relevance of weather products and information. Route reports of unsatisfactory products or services at the lowest levels of operations. Forward all unresolved issues to the 26 OWS Operations Superintendent and/or Director of Operations through the 26 OWS similar chain of command (Operations Superintendent/Director of Operations, etc.). Provide a courtesy copy of feedback to the 42 OSS/CC.

2.2.12. Coordinate weather support for their supported organizations during hours of closure far enough in advance with the 26 OWS to ensure proper hand off support. Maxwell Weather will notify the 26 OWS upon closing of operations and verify finalization of support arrangements including flight weather briefings.

2.2.13. Notify the 26 OWS when resuming operations at the beginning of their operational duty day. Use this contact to gain environmental situational awareness of current and forecast conditions, discuss any active/imminent resource protection products and receive handover of flight briefing responsibility.

2.2.14. Forward updated changes in documented support to the 26 OWS, as required. If these updates drive further changes to Maxwell Weather-26 OWS operations, prior coordination between Maxwell Weather-26 OWS leadership is mandatory. Agreed upon changes will be documented on the installation data page.

2.2.15. Notify the 26 OWS Operations Superintendent or regional zone OIC when temporary changes to duty hours occur (e.g., Family Day, other closures/extensions). Make this notification no later than 24 hours in advance of the closure to allow the 26 OWS to reallocate its resources, as required.

2.2.16. Review the FRM for the installation hosted electronically by the 26 OWS at least annually. Provide updates (e.g., new airfield weather sensors, local mission types) to allow the 26 OWS to update their installation's electronic FRM, as required.

2.2.17. Notify the 26 OWS when moving to the Alternate Observing Location (AOL). Provide the 26 OWS temporary telephone numbers and any changes in the weather warning and advisory notification procedures.

2.2.18. Limit analysis efforts to mission-scale effects along mission routes and operating areas (e.g. terrain influences) to refine characterization products provided by the 26 OWS. Maxwell Weather will not re-characterize the environment at hemispheric or synoptic scales.

2.2.18.1. Use 26 OWS-issued graphical and alphanumeric analysis and forecast products, TAFs, Watches, Warnings (WW), and Forecast Weather Advisories (FWA) in developing The MWP, as well as for updating supported unit(s) decision-makers on environmental impacts to operations.

2.2.18.2. Discuss potential changes to characterization products with the 26 OWS when significant disagreements exist or the need to amend products or issue warnings. The 26 OWS has final issue authority.

2.2.18.3. Alert the 26 OWS to developing situations not coded in meteorological reports that potentially drive amendments to forecast products from the 26 OWS, Eyes Forward function or affect flight safety.

2.2.19. Ensure operating procedures include Maxwell Weather timeline requirements and requirements for relaying all PIREPS to the 26 OWS.

2.2.20. Fully utilize and do not deviate from the tropical cyclone information provided by the 26 OWS (i.e., Tropical Cyclone-Threat Analysis Product) derived from National Hurricane Center.

2.2.21. Work with CEX to ensure transport models configuration, to automatically pull observed or forecast gridded model data when possible. Provide a region-specific model data recommendation consistent with the 26 OWS model.

2.2.22. Upon request from Emergency Management or any other agency, obtain/provide CDMs from the 26 OWS.

2.2.23. Coordinate weather watch and warning criteria, as well as tropical cyclone forecasts, to include the Desired Lead Times and notification methods with the 26 OWS.

2.2.24. Issue weather warnings when imminent weather conditions pose a hazard to life and property, and time of onset does not allow collaboration with the 26 OWS. Contact the 26 OWS as soon as possible after local dissemination to ensure warning information is in their warning tracking and verification system as well as expanded METWATCH assumed by the 26 OWS.

2.2.25. Coordinate forecast weather advisory requirements with the 26 OWS and document the requirement on the installation data page. The desired lead-time based upon Maxwell AFB requirements and the 26 OWS capability to provide such advance notice.

2.2.26. Develop procedures to provide appropriate information to the Maxwell Command Post IAW AFI 10-206, *Operational Reporting* (OPREP), and Maxwell AFB policies. Maxwell Weather will ensure the 26 OWS and AETC/A3OW are aware of the reported weather event as soon as practical.

2.2.27. Notify the 26 OWS Operations Floor Production Supervisor of all aircraft mishaps as soon as possible after notification of the event. Note: Expedient notification is critical to archiving data pertinent to the mishap.

2.2.28. Conducts additional responsibilities depicted in this instruction for cooperative weather watch

2.3. The 26 OWS and Maxwell Weather together will:

2.3.1. Ensure the timely issuance of WWAs with supported customers.

2.3.2. Establish procedures to manage severe weather threats, to include recalling weather personnel.

2.3.3. The 26 OWS will determine mandatory forecast review criteria of severe weather events as required. Maxwell Weather may request reviews for severe weather events that negatively influence the effective execution of military operations. The 26 OWS is the primary OPR for the formal review, and Maxwell Weather will provide inputs and coordination, as required.

2.3.4. Assist the installation commander and emergency management personnel providing technical material and/or developing presentations to educate installation agencies on the purpose, applicability and operating procedures of the weather watch and warning system.

2.4. The 908th Airlift Wing/357th Airlift Squadron:

2.4.1. Forwards weekly and daily flying schedules to Maxwell Weather to ensure adequate pre-arranged briefing support.

2.4.2. Ensures Maxwell Weather notification of any mission schedule changes, preferably a day in advance, to have adequate time to prepare aircrew briefings.

2.4.3. Notifies Maxwell Weather of requirements for Instrument Refresher Course.

2.4.4. Forwards all received PIREPs to Maxwell Weather.

2.4.5. Ensures the 357 AS Duty Officer/NCO personnel acquire proper training from Maxwell Weather on interpreting information disseminated over the JET.

2.4.6. Reports JET malfunctions to Maxwell Weather, and request backup support via phone line. Maxwell Weather will help troubleshoot issues and log the system out if necessary.

2.4.7. Notifies Maxwell Weather whenever weather support requirements change.

2.4.8. Notifies Maxwell Weather whenever the aircraft weather sensitivities listed in Attachment 6 change.

2.4.9. Provides Maxwell Weather personnel with access to an Alternate Operating Location when their primary location is evacuated. Makes the following available for use by the weather forecaster: computer, printer, desk space, phone, and fax machine.

2.4.10. Notifies 908 flight line personnel of weather watches, warnings and advisories.

2.5. The 42 OSS/OSAA (Airfield Management):

2.5.1. Monitors weather on JET at all times. Reports malfunctions to Maxwell Weather and requests backup dissemination. Maxwell Weather will help troubleshoot the issue and log out the system if necessary.

2.5.2. Notifies Maxwell Weather personnel, via the base secondary crash net or hotline (these are recorded means), of all aircraft precautionary landings, emergency landings, aircraft mishaps and ground emergencies.

2.5.3. Notifies Maxwell Weather of the following:

2.5.3.1. Code 3 (equivalent) or higher diverts.

2.5.3.2. Changes to airfield operating hours.

2.5.3.3. PIREPs.

2.5.4. Ensures all airfield management operations personnel are trained to read and interpret information disseminated over JET.

2.5.5. Ensures current Maxwell Weather hours of operation and PMSV information DoD Flight Information Publication (FLIP) publication.

2.5.6. Provides Maxwell Weather with FLIPs, and other FAA publications as required. Maxwell Weather will review FLIPS, including the RADAR Instrument Approach Minimums, for changes in airfield minima.

2.5.7. Broadcast weather warnings over the LMR ramp net.

2.6. The 42 OSS/OSM (Airfield Systems):

2.6.1. Ensures 42 OSS/OSM personnel maintain weather equipment in accordance with appropriate directives and technical orders.

2.6.2. Reports to higher headquarters required information concerning outages on meteorological communications or sensing equipment that impact mission capability.

2.6.3. Issues job control numbers, contacts appropriate maintenance personnel for 42 OSS/OSM maintained equipment, and monitors maintenance actions. Maxwell Weather personnel will provide mission impact statements if outages affect mission capability.

2.6.4. Is responsible for maintaining and restoring all meteorological equipment listed in MAXWELLAFBI 13-202, *Airfield Operations*.

2.6.5. The 42 OSS/OSM personnel are available 24 hours a day/7 days a week and have a 1hour response time.

2.6.6. 42 OSS/OSM personnel will notify Maxwell Weather one hour prior to taking equipment offline for maintenance.

2.7. The 42 OSS/OSAT (ATC):

2.7.1. Provides indoctrination training to Maxwell Weather personnel on Air Traffic Control facilities, effect of weather on handling air traffic and the use of weather information.

2.7.2. Informs the duty forecaster of the active runway upon opening the control tower and during runway status changes.

2.7.3. Conducts additional responsibilities depicted in this instruction for cooperative weather watch.

2.8. The 42d Security Forces Squadron (42 SFS):

2.8.1. Notifies the following agencies of severe weather warnings:

2.8.1.1. All posts and patrols.

2.8.1.2. Base housing residents (when directed by Maxwell Command Post).

2.8.1.3. Family campground residents (when directed by Maxwell Command Post).

2.8.2. As part of the Cooperative Weather Watch, notifies Maxwell Weather if any significant weather (tornadic activity, damaging winds, or large hail) and/or related damage observed on Maxwell AFB-Gunter Annex.

2.9. The Maxwell Command Post:

2.9.1. Has JET running on their computers at all times. Reports JET malfunctions to Maxwell Weather and requests backup dissemination. Maxwell Weather will help troubleshoot the problem and log out the system if necessary.

2.9.2. Ensures command post controllers can properly read and interpret data disseminated over the JET. Requests training from Maxwell Weather if necessary.

2.9.3. Immediately disseminates weather watches, warnings, and advisories over the AtHOC and the Giant Voice (see Attachment 7) when received.

2.9.4. After receipt of a tornado warning, activate the base siren upon notification from Maxwell Weather or 26 OWS that a tornado is expected within 15 minutes, when a tornado is occurring at Maxwell AFB, or when deemed necessary.

2.9.5. Forwards reports of weather related damage on Maxwell AFB to Maxwell Weather.

2.9.6. Maintains a current copy of 42 OSS recall roster and notifies Maxwell Weather manager whenever Maxwell Weather is closed and any of the conditions requiring notification/activation of SWAP standby member occurs.

2.10. The 42d Communications Squadron (42 CS): The server for the JET system resides within the 42 CS NCC and the 26 OWS and 42 OSS/OSW have remote access. 42 CS will allow access for server TCNOs/updates or perform the install of TCNO/updates IAW 24 AF-AF/A3OW-JET PMO MOA. Contact 557 WW Customer Service (Fielded Systems) at DSN: 271-2586, Option 2 for JET equipment issues.

2.11. The 42 ABW Chief of Safety: Ensures the convening authority includes a qualified weather representative as a member of any Interim Safety Board or Safety Investigation Board whenever weather or weather service may be a contributing factor to the accident under investigation.

2.12. The 42d Logistics Readiness Squadron (42 LRS): Forwards all weather watches and warnings to the Fuels Control Center and Vehicle Maintenance.

2.13. The CAP – USAF: Notifies Maxwell Weather manager of any changes to aircraft weather sensitivities listed in attachment 6.

2.14. The 42d Force Support Squadron (42 FSS): Notifies departmental agencies of weather watches, warnings and advisories.

Chapter 3

SERVICES PROVIDED

3.1. Surface Weather Observation.

3.1.1. Observations will be disseminated over the Joint Environmental Toolkit (JET) and include the time of the observation, wind direction, wind speed, visibility, present weather, sky condition, temperature in Celsius, dew point in Celsius, altimeter setting, and remarks. An instantaneous reading of the Runway Visual Range (RVR) is included when visibility is one mile or less or RVR is 6,000 feet or less. Attachment 5 contains surface observation formats.

3.1.2. Attachment 2 contains criteria leading to special observation dissemination.

3.1.3. Basic Weather Watch. The FMQ-19 Automated Meteorological Station typically operates in automated mode. When in this mode, it provides a continuous weather watch for the airfield. During FMQ-19 augmentation, the weather forecaster will conduct a Basic Weather Watch for the airfield. Implement Basic Weather Watch (BWW) to establish the minimum requirements to ensure the proper level of weather watch awareness.

3.1.3.1. Because of other weather duties, weather forecasters cannot monitor the weather continuously, and the FMQ-19 assists in this effort. Due to these other weather duties, weather forecasters may not detect and report all weather changes as they occur.

3.1.3.2. During a BWW, weather forecasters recheck weather conditions at intervals not to exceed 20 minutes since the last observation/recheck. Execute this recheck to determine any need for an Aviation Selected Special Weather Report (SPECI), when any of the following conditions are observed to be occurring or forecasted to occur within 1 hour:

3.1.3.2.1. Ceiling forms below or decreases to less than 1,500 feet.

3.1.3.2.2. Ceiling dissipates, or increases to equal or exceed 1,500 feet.

3.1.3.2.3. Visibility decreases to less than 3 statute miles (4800 meters).

3.1.3.2.4. Visibility increases to equal or exceed 3 statute miles (4800 meters).

3.1.3.2.5. Precipitation (any form).

3.1.3.2.6. Thunderstorms

3.1.3.2.7. Fog or mist.

3.1.3.2.8. All supplemental criteria specified in table 3.1.

3.1.3.2.9. During mandatory back-up specified in table 3.1.

3.1.3.2.10. In addition to the above minimum requirements, weather technicians will remain alert for any other changes in weather conditions that require a SPECI observation. Weather technicians will also monitor local area observational and forecast products as often as necessary to remain aware of changes expected to affect their area of responsibility.

3.1.4. FMQ-19 Augmentation. Augmentation is the process of manually adding or editing data in an observation generated by the FMQ-19. The two augmentation processes are supplementing and back-up. Supplementing is a method of manually adding meteorological

information to an automated observation beyond the capabilities of the FMQ-19. Back up, is manually providing meteorological data and/or dissemination to the FMQ-19 observation when the automated method is not operational or unavailable due to sensor and/or communication failure.

3.1.4.1. Maxwell Weather uses manual observing methods (e.g., prevailing visibility reporting, thunderstorm reporting) when supplementing or backing up the FMQ-19. Only supplement elements in Table 1.2. Only the specific observation elements that are missing or incorrect due to sensor and/or communication failure receive backed up. For example, if the visibility sensor is malfunctioning, only back- up. All other elements in the observation are as the FMQ-19 reports.

3.1.4.2. Any data used to supplement or back up an observation will receive evaluation within 15 minutes of the actual time of the report. Do not use data older than 15 minutes in an observation.

3.1.4.3. In order to properly supplement and back up the FMQ-19, the weather forecaster on duty maintains situational awareness of current weather conditions and the FMQ-19 observations at all times.

3.1.4.4. Supplementing. The weather forecaster on duty will supplement observations while the airfield is open and for observing conditions in Table 3.1. In addition, the forecaster will perform a Basic Weather Watch from the manual observing point of observation and be ready to supplement/back-up observations if the conditions in Table 3.1 are forecast to occur within 1 hour.

3.1.4.5. Back-up. No requirement exists to back-up the system/sensor during airfield closure, unless tornadic activity is occurring or forecast to occur. Weather technicians will provide back-up information in accordance with Table 3.1 Summary of Back-up Encoding, and Table 3.1, Summary of Back-up Remarks in AFMAN 15-111, *Surface Weather Observations*.

3.1.4.6. Estimate the values when using backup wind and pressure equipment.

Table 3.1. Supplemental/Mandatory Back-up criteria.

Mandatory Supplementary Weather Conditions – Body of Report
1. Tornado (+FC)
2. Funnel Cloud (FC)
3. Hail (GR) ≥ ½ inch
4. Volcanic Ash (VA)
5. Ice Pellets (PL)
Mandatory Supplementary Weather Conditions – Remarks Section
1. Tornadic Activity
2. Snow depth (only during airfield operating hours)
3. Tower Visibility
Mandatory Back-Up Weather Conditions
1. Thunderstorms (within 5NM of Maxwell AFB)[4]
2. Ceiling/Visibility below 1500ft/3 miles[4]
3. Freezing precipitation, any type[5]

4. Snow[5]
5. Freezing fog[5]
NOTES: 1. The immediate reporting of +FC or FC takes precedent over any other phenomena. 2. The forecaster will log on to the FMQ-19 and be ready to supplement for tornadic activity anytime a weather watch or warning is issued for tornadoes. 3. Data augmented in an observation, requires evaluation within 15 minutes of the actual time of the report. 4. At times, the FMQ-19 automated observations were unrepresentative when these conditions occur. These unrepresentative observations resulted in mission delays and cancelations when aircraft were doing visual approaches or assault strip landings. Indicated items are backed up during flying operations. 5. Due to a deficiency in the FMQ-19 - incorrectly reporting freezing precipitation during snow or freezing fog events.

3.2. Terminal Aerodrome Forecast (TAF).

3.2.1. TAFs provide meteorological information in a standard text format containing the cloud cover, cloud heights, and visibility for general flight rule conditions, as well as wind, altimeter, and other weather parameters needed to sustain the landing and takeoff of aircraft.

3.2.2. The 26 OWS issues the TAF for Maxwell AFB in collaboration with Maxwell Weather.

3.2.3. TAFs are issued at 0615L and 1415L when the airfield is open, and are valid for a 30 hour period. See Attachment 5 for code breakdown.

3.2.4. Unless otherwise specified, forecast elements in the main body of the forecast text apply to the area within a 5 nautical mile radius of the center of Maxwell airfield complex.

3.2.5. The 26 OWS and Maxwell Weather will ensure forecasts indicate when conditions cross specification criteria, are representative of current and expected weather conditions, and remain within standard amendment criteria. TAFs are amended and disseminated whenever thresholds in Attachment 3 are crossed and not reflected in the current TAF. Amendments cover the remaining time in the original 24-hour TAF.

3.2.6. Append the following remark to the 1400L TAF IAW AFMAN 15-124, *Meteorological Codes*: "LAST NO AMDS AFT YYGG NEXT YYGG". Where AFT YYGG is the day and time (Z) when the airfield is closed and a TAF is no longer required and NEXT YYGG is the time when the new TAF is required. For example, "LAST NO AMDS AFT 2004 NEXT 2212" means the TAF will not be amended after 04Z on the 20th and the next TAF is scheduled for 12Z on the 22nd day of the month.

3.3. The 357th Airlift Squadron Mission Weather Product (MWP).

3.3.1. Maxwell Weather will provide the 357 AS MWP (see Figure 3.1.) for each local mission departing and landing at Maxwell AFB. Produce the MWP keeping mission critical thresholds for the 357 AS (see Attachment 6) in mind.

3.3.2. Maxwell Weather will fax or print the 357 AS MWP on the printer of the 357 Operations Desk no later than 3 ½ hours prior to the first scheduled take off. It is valid for the local flying window of that day, and only prepared when local missions are scheduled for that day.

3.3.3. Expect MWP amendment anytime the criteria in attachment 4 are met. Additionally, verbal updates will be given to the 357 AS Duty Officer/NCO whenever other changes to the MWP occur (e.g., weather warnings, weather watches, weather advisories, enroute hazards, changes to drop zone weather, and alternate airfield conditions). Maxwell Weather will disseminate amendments by fax or print via the 357 AS printer.

3.3.4. Maxwell Weather will not produce a MWP that crosses operational thresholds without first coordinating with the 26 OWS unless it is critical to flying safety or when weather conditions are rapidly changing and prior coordination is not possible.

3.3.5. The MWP will include the following weather information: Maxwell AFB forecast; Maxwell AFB watches, warnings, and advisories; enroute weather; forecast for Buzz drop zone; solar/lunar data; space weather; and weather for alternate airfields. Buzz drop zone is located 14 miles due west of the Maxwell airfield (32°22'50"N 86°36'05"W elevation 126 feet).

Figure 3.1. 357 AS MWP Example.

357th AIRLIFT SQUADRON MISSION WEATHER PRODUCT

Valid: 13 NOV 12 2359-0400 | Issue Tim 2045Z | Forecast Morence | Phone: 953-2071 PMSV: 342.3

MAXWELL AFB FORECAST

TIME (Z)	WIND	GUST	VIS	WX	CEILING
00-04	35006		7	NSW	300

MAXWELL AFB TAKEOFF/LANDING DATA

TIME (Z)	ALSTG	PA	TEMP	TEMP DEV
00	30.24	-123	9	5.2
01	30.26	-142	8	5.6
02	30.27	-151	7	6.0
03	30.28	-160	6	6.5
04	30.29	-169	4	6.9

WATCHES/WARNINGS/ADVISORIES

WWA#	TEXT	VALID
	NONE	

ENROUTE WEATHER

TSTMS

COVERAGE	MAX TOPS	LOCATION
NONE		

TURBULENCE

TYPE	LEVEL	LOCATION
LIGHT	SFC-050	RTE

ICING

TYPE	LEVEL	LOCATION
NONE		

MIN CIG/VIS ENROUTE

	MIN CIG	VIS	LOUD TOP
NRN ROUTES	300	7	350
SRN ROUTES	200	7	300
MIN FREEZING LEVEL			120

BUZZ DZ WINDS/TEMP

Level	Dir	Spd	Temp
005	020	14	10
010	023	18	9
015	032	20	8
020	040	21	7
030	067	18	8
040	075	12	9
050	061	8	9
060	041	5	9
070	030	3	9
080	015	2	8
090	331	2	6
100	297	4	4
200	276	20	-19

BUZZ DZ WEATHER

Time (Z)	Min Cig/Vi	Wx	Sfc Wind
00-04	300/7	NSW	36006KT

FLIGHT LEVEL TEMP DEV

FL100:	8.8	FL200:	5.6

SOLAR/LUNAR DATA

BMNT	1118	MOONRISE	1151
SUNRISE	1214	MOONSET	2240
SUNSET	2246	ILLUM %	0%
EENT	2342		

SPACE WEATHER

GPS	NO IMPACT	HF	MARGINAL
UHF	NO IMPACT		

ALTERNATE WX

KMGM 131720Z 1318/1418 01010KT P6SM SKC
FM132300 36006KT P6SM SCT300
FM140800 05007KT P6SM SCT050 BKN100
FM141500 07009KT P6SM BKN015 OVC050

TAF KBIX 1318/1500 01010G15KT 9999 SKC QNH3024INS
TEMPO 1318/1323 03015G25KT
BECMG 1323/1324 36009KT 9999 FEW250 QNH3019INS T16/1421Z T06/1411Z

3.4. Flight Weather Briefings.

3.4.1. Flight weather briefings will be prepared using a DD Form 175-1, *Flight Weather Briefing*. Pilots may request verbal briefings instead, and they are logged on Maxwell AFB

Form 27, *Aircrew Briefing Log*. Attachment 8 of AFMAN 15-129 Vol 2, *Air and Space Weather Operations – Exploitation,* contains information found on the DD Form 175-1.

3.4.2. Maxwell Weather will provide flight weather briefings to aircrews assigned to Maxwell AFB (i.e., the 357 AS and CAP-USAF). For Maxwell aircrews that are off-station, Maxwell Weather will arrange to provide briefings remotely (i.e., via phone, fax, web, or email) or arrange with other Air Force weather units to provide crews weather support.

3.4.3. Maxwell Weather will provide flight weather briefings to transient aircrews as local mission and manning dictate. Transient aircrews will be directed to the 26 OWS when Maxwell Weather is unable to provide MWPs.

3.4.4. The 26 OWS employs a web-based capability to provide remote flight weather briefings. Sections of the web page will present weather products for aircrews in the course of a telephone-based briefing with visual aids designed to enhance briefing effectiveness. The web page will also allow aircrews to make on-line, advanced requests for briefings.

3.4.5. To ensure 26 OWS has adequate time to examine the weather conditions and complete the required documentation, aircrews will need to request routine briefings at least 2 hours prior to brief time. Aircrews are encouraged to request routine briefings via the 26 OWS web page. If the web page is inaccessible, request briefings via telephone at DSN 331-2651 or commercial 318-529-2651, toll free 1-866-223-9328 or via fax at DSN 331-2609.

3.4.6. No-notice and short-notice requests (less than 2-hour notice) for flight weather briefings will be accomplished as quickly as possible by 26 OWS depending on the current workload, available manpower, and duty priorities. No-notice briefing requests will be prioritized behind existing requests unless special circumstances warrant a higher priority (e.g., alert, search and rescue, medical evacuation, distinguished visitor.)

3.4.7. The 26 OWS will document routine flight weather briefings using the appropriate briefing form (e.g., DD Form 175-1) or electronic equivalent. Forward the briefing form to the aircrew by whatever means is most appropriate and feasible (e.g., fax, e-mail, 26 OWS web page).

3.4.8. The 26 OWS will document verbal flight weather briefings using the 26 OWS Verbal Flight Weather Briefing Log.

3.4.9. MISSIONWATCH will be performed for all MWPs and flight weather briefings provided by Maxwell Weather. Whenever unforecasted changes occur, Maxwell Weather will notify the pilot through the 357 AS Duty Officer/NCO, ATC, airfield management operations, or the Maxwell Command Post if possible.

3.5. Pilot-to-Metro-Service (PMSV).

3.5.1. Maxwell Weather provides PMSV radio support during hours of operation using frequency 342.3 MHz. There are no known limitations for this radio/frequency.

3.5.2. The 26 OWS provides support by phone patch 24 hours a day/7 days a week at DSN 331-2651/2652/2653.

3.5.3. Log information from PMSV contacts on Maxwell AFB Form 28. See Figure 3.2 for an example.

Figure 3.2. Maxwell AFB Form 28, *Pilot-to-Metro-Service Log*, Example.

PILOT TO METRO SERVICE (PMSV) LOG — MONTH: Oct 04

DAY	TIME (Z)	CALL SIGN	INFORMATION GIVEN PILOT/COMMENTS	PIREPS	INIT	DISSEM
12	1406	TOIL60	KMXF FT 1700Z	OV/ KMXF 36010 /TM 1406 /FL 120 /TP C130 /SK BKN100-TOP UNKN /WX FV99 /TA M08 /WV 26045 /TB LGT CHOP /IC NEG /RM	MSG	X
14	1826	JIFFY29	KBHM	OV/ KBHM /TM 1826 /FL 300 /TP B707 /SK /WX /TA M28 /WV 28075 /TB LGT 250-300 /IC NEG /RM	WC	X
				OV/ /TM /FL /TP /SK /WX /TA /WV /TB		

3.5.4. Outage procedures.

3.5.4.1. If the PMSV is inoperative, Maxwell Weather will notify ATC and ATC will monitor the frequency. The PMSV radio will be logged out with job control.

3.5.4.2. For long-term outages (more than 1 hour), a NOTAM will be transmitted with information about the outage including the expected length, if known, i.e., "PMSV 342.3 unavailable until approximately 24/1800Z. Tower monitoring freq 342.3."

3.5.4.3. When the equipment becomes operational, the tower will be notified and the radio will be logged back in with job control. In addition, Airfield Management will cancel the NOTAM.

3.6. Pilot Reports (PIREP).

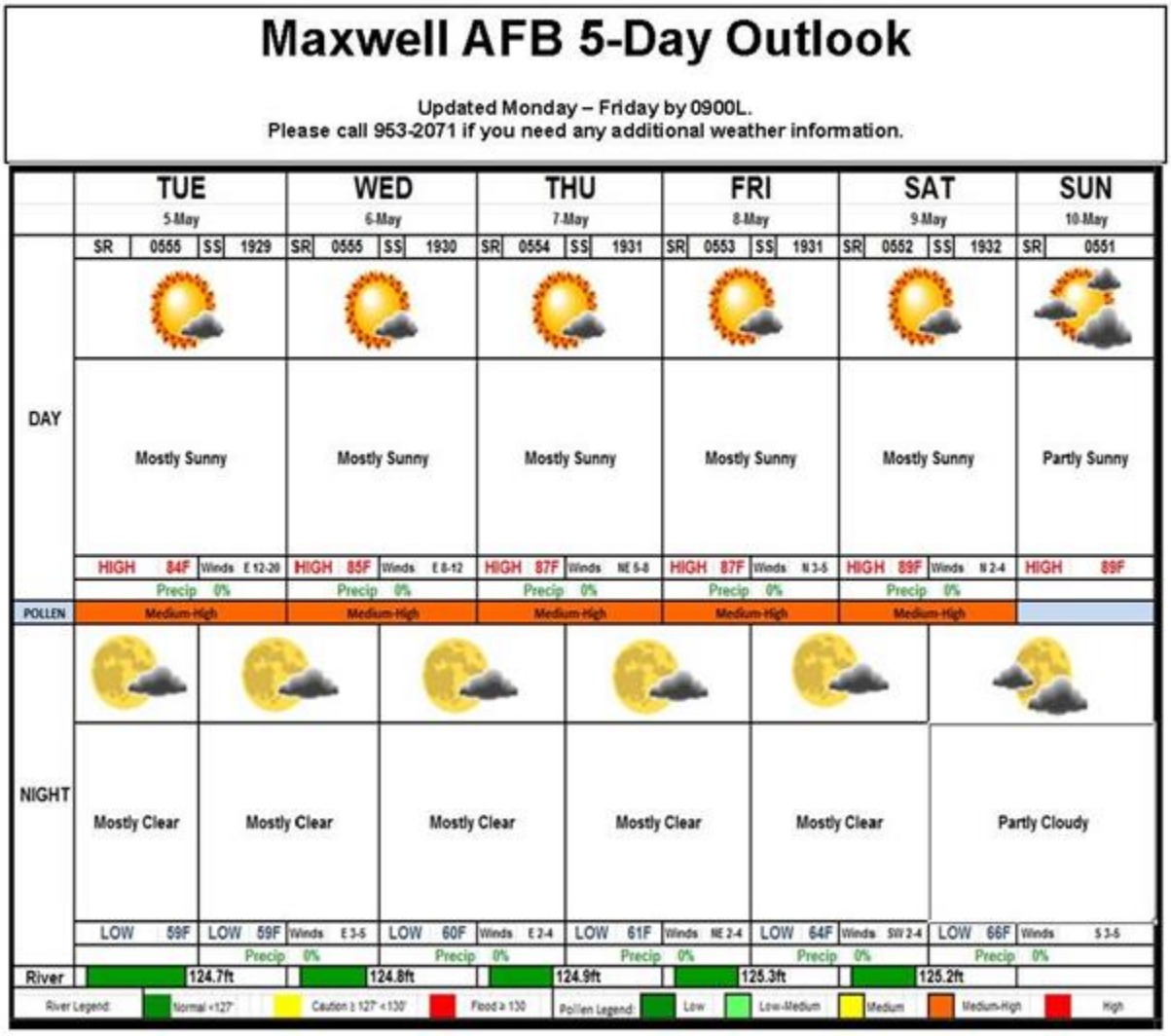
3.6.1. Aircrews are highly encouraged to provide PIREPs during PMSV contacts.

3.6.2. All PIREPS dissemination is over JET. See Attachment 5 for format.

3.6.3. Maxwell Tower will relay PIREPS received to Maxwell Weather within 5 minutes of receipt.

3.7. Maxwell AFB 5-Day Weather Outlooks. The Maxwell AFB 5-Day Weather Outlook will be produced and updated on Maxwell Weather web page by 0900L, Monday through Friday, excluding U.S. Holidays and wing down days. See Figure 3.3 for an example.

Figure 3.3. Maxwell AFB 5-Day Weather Outlook Example.



3.8. Space Weather Support. No agency on Maxwell AFB requires space weather regularly.

3.9. Base Staff Meetings. Maxwell Weather will present a weather briefing at 42 ABW Base Staff meetings. The content of the briefing is flexible, but will include, as a minimum, a current surface chart, satellite image, radar image, and 5-day forecast for Maxwell AFB.

3.10. Emergency Operations Center (EOC) Briefings. Maxwell Weather will provide a weather representative when the EOC activates. When a weather briefing is required, the EOC support team will notify Maxwell Weather as soon as possible of the briefing time, briefing location, and information needed.

3.11. Weather Training.

3.11.1. Upon request, Maxwell Weather will provide Instrument Refresher Course briefings to flying units located on Maxwell AFB.

3.11.2. Upon request, Maxwell Weather will train other non-weather personnel assigned to agencies (airfield management operations and Maxwell Command Post) that receive and take

action based on weather information transmitted over the JET. Generally, this training concerns interpreting locally disseminated weather information such as observations, forecasts, weather advisories, weather watches, and weather warnings.

3.11.3. Maxwell Weather will train other personnel involved in aerodrome operations (e.g., 357 AS Duty Officer/NCO) as necessary.

3.12. Climatology.

3.12.1. Each month, Maxwell Weather will prepare a climatological data summary for Maxwell AFB on an Excel spreadsheet and email it to organizations with a requirement.

3.12.2. Units may request climatological information for Maxwell AFB and other areas of interest. Data can be compiled for deployments, construction projects, runway repair/cleaning, heating and cooling-degree days, and other uses. Make requests with as much lead-time as possible so Maxwell Weather can compile data or obtain it from the 14 Weather Squadron.

3.13. Major Accident/Natural Disaster/Nuclear Fallout Support. Under normal operating conditions, Maxwell Weather will assist base agencies responding to major accidents and natural disasters. During communication outages, equipment outages, personnel shortfalls, and during Maxwell Weather evacuation, expect support degradation.

3.13.1. Major Accident Support. This category includes all aircraft accidents and ground mishaps. Maxwell Weather will provide weather data and forecasts to the EOC and other base agencies as requested.

3.13.2. Natural Disasters. Maxwell Weather will provide weather support for natural disasters IAW procedures outlined in 42 ABW Plan 10-2, *Comprehensive Emergency Management Plan* (CEMP). Maxwell Weather is the single point of contact for coordinating weather information from the National Weather Service and National Hurricane Center.

3.13.3. Hurricanes.

3.13.3.1. 26 OWS uses the tracks and wind forecasts from the National Hurricane Center (NHC) tropical cyclone bulletins when developing the TAFs, warnings, watches, and advisories for Maxwell AFB. Deviation from these official forecast tracks is not authorized; however, modifications to the local wind forecast may be necessary due to terrain.

3.13.3.2. 26 OWS serves as the liaison between the NHC and Maxwell Weather.

3.13.3.3. Maxwell Weather will translate the official tropical cyclone forecast and 26 OWS forecasts into specific mission forecast for Maxwell AFB.

3.13.3.4. When tropical cyclones are forecasted to affect the southeastern United States or the Gulf Coast, Maxwell Weather will notify the Maxwell Command Post and 42 OSS/CC.

3.13.3.5. If the EOC forms, Maxwell Weather will provide briefings that include, as a minimum, the storm's current and forecast positions.

3.13.3.6. If winds of 50 knots or greater, associated with a hurricane or tropical storm, are expected at Maxwell AFB, Maxwell Weather will assist the wing commander in determining times to go into Hurricane Conditions (HURCON) and recovery phase.

3.13.3.7. The 26 OWS and Maxwell Weather will monitor weather conditions and issue watches, warnings, and advisories for other hurricane related hazards if they are occurring or expected to occur including tornados, strong winds, thunderstorms and lightning, cross winds, and heavy precipitation.

Table 3.2. Hurricane Conditions (HURCON)/Response Phases.

HURCON 4 Destructive winds of 50 knots or greater are possible within 72.
HURCON 3 Destructive winds of 50 knots or greater are possible within 48 hours.
HURCON 2 Destructive winds of 50 knots or greater are possible within 24 hours.
HURCON 1 Destructive winds of 50 knots or greater are possible within 12 hours.
Recovery Phase Actions taken to reestablish primary mission capability and return Maxwell Air Force Base to normal operations.

3.14. Flag Conditions and Wet Bulb Global Temperature. Bioenvironmental Engineering (42 MDG) will provide flag conditions and wet bulb global temperature for Maxwell AFB. Maxwell Command Post disseminates flag conditions over AtHOC.

3.15. Pre-deployment Briefings and Concept Briefings. Upon request from the 42d Logistics Readiness Squadron, Maxwell Weather will provide pre-deployment briefings, concept briefings, and climatological data for deployment locations.

3.16. Releasing Weather Information to Non-DoD Agencies. Maxwell Weather may support nonmilitary agencies via 42 ABW/PA permission. Such requests range from written requests for the release of local weather information to immediate support required to avert or lessen the loss of life, personal injury, or property damage. Support provided will not impair the military mission of Maxwell Weather. Expect Air Force reimbursement for such services, and Maxwell Weather does not assume any legal, financial, or moral responsibility for the service provided.

3.17. Chemical, Biological, Radiological, Nuclear, and High-Yield Explosive (CBRNE) Operations. Maxwell Weather will serve as the weather subject matter expert to CBRNE operations on Maxwell AFB/Gunter Annex. Specifically, Maxwell Weather will:

3.17.1. Routinely meet with installation EM, Fire Emergency Services (FES), and Bioenvironmental Engineering (BEE) to achieve appropriate mission immersion.

3.17.2. Become familiar with the CBRNE plume models used on Maxwell AFB (e.g., Joint Effects Model (JEM), and Area Locations of Hazardous Atmospheres (ALOHA), etc.), their tactical decision aid outputs, and uses in installation commanders' decision cycles.

3.17.3. Understand the variety of possible weather input options within each model for each type of C, B, R, N and E event.

3.17.4. Recommend and provide the most appropriate weather data type use to run their chosen CBRNE model and assess a real-time event.

3.17.5. Provide a model data recommendation consistent with models at the 26 OWS.

3.17.6. If surface observations or alphanumeric forecasts are requested, make sure that observations and forecasts are representative of the location/time of the CBRNE event.

3.17.7. Upon request, obtain/provide Chemical Downwind Messages for Maxwell AFB.

3.18. Cooperative Weather Watch.

3.18.1. To ensure Maxwell Weather disseminates the most accurate surface weather observations, the control tower and weather personnel employ a Cooperative Weather Watch. Maxwell Weather will provide initial weather training and certification for ATC personnel on METAR code, TAF code, visibility determination, and the Cooperative Weather Watch. The NCOIC of ATC Training and Standardization will provide recurring training and certification.

3.18.2. Of primary concern is the report of tower visibility different from the prevailing surface visibility, reporting of sector visibility, local pilot weather reports (PIREP), and any occurrence of previously unreported weather conditions that could affect flight safety or be critical to the safety and efficiency of other local operations and resources. As a minimum, Air Traffic Control (ATC) and Maxwell Weather will accomplish the following actions:

3.18.2.1. Weather forecasters will reevaluate weather conditions whenever a reliable source (i.e., ATC, pilots, etc.) reports weather conditions different from the last disseminated observation (e.g., different ceiling height, visibility, present weather). Based on reevaluation of the different weather conditions reported, weather forecasters will:

3.18.2.1.1. Generate a SPECI if the different conditions warrant immediate dissemination.

3.18.2.1.2. Include the differing conditions in the next required Meteorological Aviation Report (METAR) or SPECI observation if the conditions alone do not warrant immediate dissemination.

3.18.3. ATC Personnel Actions. ATC directives (i.e., AFI 13-204v3, *Airfield Operations Procedures and Programs*; FAA Order 7110.65, *Air Traffic Control*) require certified control tower personnel to make tower prevailing and sector visibility observations when the prevailing visibility at the usual point of observation, or at the tower level, is less than 4 miles. Control tower personnel certified to take visibility observations will do the following:

3.18.3.1. Notify Maxwell Weather when they observe tower prevailing visibility to decrease to less than 4 miles, or increase to equal or exceed 4 miles.

3.18.3.2. When the prevailing visibility at the tower or the surface is less than 4 miles, report all changes of one or more reportable values to Maxwell Weather.

3.18.3.3. As required by FAA Order 7110.65, use the lower of either the tower or surface visibility data as the prevailing visibility for aircraft operations.

3.18.3.4. Relay all PIREPs to the Maxwell Weather no later than 5 minutes after receipt.

3.18.4. When in manual observation mode, Maxwell Weather Personnel will:

3.18.4.1. Notify the tower as soon as possible whenever the prevailing visibility at the observation point decreases to less than 4 miles, or increases to equal or exceed 4 miles.

3.18.4.2. Re-evaluate surface prevailing or sector visibility, as soon as practicable, upon initial receipt of a differing control tower value, and upon receipt of subsequent reportable changes at the control tower level.

3.18.4.3. Use control tower values of prevailing or sector visibility as a guide in determining the surface visibility when the view of portions of the horizon is obstructed by buildings, aircraft, etc. The presence of a surface-based obscuration, uniformly distributed to heights above tower level, is sufficient reason to consider the weather unit's prevailing visibility to be the same as the control tower level.

Chapter 4

WEATHER WARNINGS, WATCHES, AND ADVISORIES

4.1. General.

4.1.1. Meteorological watch (METWATCH) describes the process of monitoring observed and forecasted weather conditions and notifying selected agencies when pre-established weather conditions occur, or expected to occur.

4.1.2. The 26 OWS, in collaboration with Maxwell Weather, will perform METWATCH duties for Maxwell AFB.

4.1.3. Warnings and advisories will be issued as forecasted or observed. Forecasted products will have a valid time. Observed products are valid from the time issued until further notice, i.e., until the phenomena is no longer occurring.

4.1.4. Normally the 26 OWS will issue all forecasted METWATCH products and Maxwell Weather will issue observed METWATCH products when they are open. The 26 OWS will issue observed METWATCH products when Maxwell Weather is closed.

4.1.5. Maxwell Weather may issue or supersede a 26 OWS-issued weather warning, watch, or advisory only when imminent weather conditions pose a hazard to life or property and prior coordination with the 26 OWS is not practical or communications do not allow. Under these conditions, Maxwell Weather will be responsible for local dissemination and contact the 26 OWS as soon as possible afterward so they can assume responsibility/accountability.

4.2. Definitions.

4.2.1. Weather Watch. A special notice to notify operational commanders of a potential for environmental conditions of such intensity as to pose a hazard to life or property. Weather Watches indicate a **potential** for environmental threats and operational commanders use them to make force protection and risk management decisions.

4.2.2. Weather Warning. A special notice to notify operational commanders when an established weather condition of such intensity as to pose a hazard to life or property **is occurring or is expected to occur**. Weather warnings provide concise information outlining environmental threats and operational commanders use them to make force protection decisions.

4.2.3. Weather Advisory. A special product notifying an end user when an established environmental condition affecting operations is occurring or is expected to occur.

4.3. Responsibilities.

4.3.1. The 26 OWS will perform the OWS responsibilities stated in AFI 15-128, *Air Force Weather Roles and Responsibilities*, and AFMAN 15-129 Vol 1, *Air and Space Weather Operations – Characterization*, as supplemented. Additionally, the 26 OWS:

4.3.1.1. Performs a continuous Terminal METWATCH for Maxwell AFB.

4.3.1.2. Issues all watches, forecast weather warnings, and forecast weather advisories.

4.3.1.3. Issues all observed warnings and advisories when Maxwell Weather is closed.

4.3.2. Maxwell Weather will perform duties IAW AFMAN 15-129 Vol 2 and the contract. Additionally, Maxwell Weather:

4.3.2.1. Issues all observed warnings and advisories when the airfield is open.

4.3.2.2. Notifies the 26 OWS after issuing, modifying, or canceling all observed warnings and advisories for Maxwell AFB.

4.3.2.3. Conveys all weather watches, warnings, and advisories verbatim to customers.

4.4. Disseminating Weather Watches, Warnings, and Advisories.

4.4.1. The JET is the primary dissemination system for weather watches, warnings, and advisories on Maxwell AFB. All watches, warnings, and advisories will be disseminated via the JET. See Attachment 5 for format and examples.

4.4.2. The 26 OWS will place a courtesy call, normally via the Integrated Weather Warning Capability (IWWC), to the Maxwell Command Post whenever they issue a watch, warning, or advisory. The command post will disseminate the products to Maxwell AFB organizations IAW Attachment 7.

4.4.3. Weather watches, warnings, and advisories will be identified numerically by month and sequential number of the product issued. For example, a weather warning number of "09002" indicates the second warning (002) issued for the month of September (09). Sequential numbers for watches, warnings, and advisories increment independent of one another. The text of a weather watch, warning, or advisory will be worded so that all recipients may easily understand it.

4.5. Weather Watches. Weather watches are issued IAW AFMAN 15-129 Vol 1. The 26 OWS will issue a weather watch for within 5 nm of the center of the Maxwell AFB to include Gunter Annex, except as specified, when the potential for the criteria defined in Table 4.1 exists.

Table 4.1. Forecast Weather Watch Criteria and Minimum Desired Lead-Times.

Watch Type	Criteria	Desired Lead Time
Tornadoes	Potential for Tornado or Funnel Cloud	60 Minutes prior to warning
Severe Thunderstorm	Potential for Damaging Winds ≥ 50 kts associated with thunderstorms and/or Damaging Hail ≥ 3/4 inch at Maxwell AFB	60 Minutes prior to warning
Moderate Thunderstorm	Potential for Strong Winds ≥ 35 kts and < 50 kts associated with thunderstorms and/or Large Hail ≥1/4 inch but < 3/4 inch at Maxwell AFB	60 Minutes prior to warning
Damaging Winds	Potential for surface winds not associated with thunderstorms ≥ 50 kts	60 Minutes prior to warning
Strong Winds	Potential for surface winds not associated with thunderstorms ≥ 35 kts but < 50 kts	60 Minutes prior to warning
Heavy Rain	Potential for Heavy Rain ≥ 2 inches within 6 hrs	60 Minutes prior to warning
Heavy Snow	Potential for Heavy Snow ≥ 2 inches within 12 hrs	60 Minutes prior to warning
Freezing Precipitation	Potential for Freezing Precipitation (Any Intensity)	60 Minutes prior to warning
Blizzard	Potential for Falling and or Blowing Snow lasting at least 3 hrs with winds ≥ 30kts and visibility ≤ 1/4mi	60 Minutes prior to warning
Lightning	Potential for Lightning within 10 NM*	30 Minutes
* Denotes deviation from AFMAN 15-129 Vol 1		

4.6. Forecast Weather Warnings. Forecast warnings are issued IAW AFMAN 15-129 Vol 1. 26 OWS will issue a forecast weather warning for areas within 5 nm of the center of the Maxwell AFB to include Gunter Annex when the criteria defined in Table 4.2 occurs, or expected to occur.

Table 4.2. Forecast Weather Warning Criteria and Minimum Desired Lead-Times.

Warning Type	Criteria	Desired Lead Time
Tornadoes	Tornado or Funnel Cloud	15 Minutes
Severe Thunderstorm	Damaging Winds ≥ 50 kts associated with thunderstorms and/or Damaging Hail ≥ 3/4 inch at Maxwell AFB	60 Minutes
Moderate Thunderstorm	Strong Winds ≥ 35 kts and < 50 kts associated with thunderstorms and/or Large Hail ≥1/4 inch but < 3/4 inch at Maxwell AFB	60 Minutes
Damaging Winds	Surface winds not associated with thunderstorms ≥ 50 kts	60 Minutes
Strong Winds	Surface winds not associated with thunderstorms ≥ 35 kts but < 50 kts	60 Minutes
Heavy Rain	Heavy Rain ≥ 2 inches within 6 hrs	60 Minutes
Heavy Snow	Heavy Snow ≥ 2 inches within 12 hrs	60 Minutes
Freezing Precipitation	Freezing Precipitation (Any Intensity)	60 Minutes
Blizzard	Falling and or Blowing Snow lasting at least 3 hrs with winds ≥ 30kts and visibility ≤ 1/4mi	60 Minutes

4.7. Forecast Weather Advisories. Forecast advisories are issued IAW AFMAN 15-129 Vol 1. 26 OWS will issue a forecast weather advisory for within 5 nm of the center of the Maxwell AFB to include Gunter Annex when the criterion defined in Table 4.3 occurs, or expected to occur.

Table 4.3. Forecast Weather Advisory Criteria and Minimum Desired Lead-Times.

Criteria	Desired Lead-Time
Temperature < 20 F	12 hours

4.8. Observed Weather Advisories. Maxwell Weather will issue an observed weather advisory for within 5 nm of the center of the Maxwell AFB when the criteria defined in Table 4.4 occurs.

Table 4.4. Observed Weather Advisory Criteria and Minimum Desired Lead-Times.

Criteria	Desired Lead-Time
Cross Winds ≥ 25 Knots	First Observed
Cross Winds ≥ 15 Knots [1]	First Observed
Low Level Wind Shear Below 2000 feet [2]	First Observed
Note 1: When CAP-USAF is flying. Note 2: When reported by a pilot or observed on VAD wind profile	

4.9. Observed Weather Warnings. Maxwell Weather will issue an observed weather warning for within 5 nm of the center of the Maxwell AFB and Gunter Annex when the criteria defined in Table 4.5 occurs. When on duty, Maxwell Weather issues separate observed lightning warnings for within 5 nm of the center of Maxwell AFB and Gunter Annex. If Maxwell Weather is not on

duty or evacuates the work center, 26 OWS provides observed lightning warning support for Maxwell AFB. Since 26 OWS is limited to cloud-to-ground strike data from the National Lightning Detection Network, it does not have the capability to detect or observe other lightning strike occurrences (e.g., cloud-to-cloud lightning).

Table 4.5. Observed Weather Warning Criteria and Minimum Desired Lead-Times.

Criteria	Desired Lead-Time
Lightning within 5 NM of Maxwell AFB	First Observed
Lightning within 5 NM of Gunter Annex	First Observed
NOTE: Lightning warnings will be issued individually for within 5 NM of Maxwell AFB and Gunter Annex.	

4.10. Lake Martin Resort.

4.10.1. Weather Watches. Weather watches are issued IAW AFMAN 15-129 Vol 1. The 26 OWS will issue a forecast weather watch for within 10 nm of Lake Martin Resort (Lat 32º 46' 30" N / Long 85º 49' 28" W) when the potential for the criterion defined in Table 4.6 exists.

Table 4.6. Forecast Weather Watch Criteria and Minimum Desired Lead-Time.

Criterion	Desired Lead-Time
Lightning Within 10 NM of Lake Martin Resort [1]	30 minutes
Note 1: Deviates from standard AFMAN 15-129 Vol 1 criteria	

4.10.2. Forecast Weather Warnings. Forecast weather warnings are issued IAW AFMAN 15129 Vol 1. 26 OWS will issue a forecast weather warning for within 5 nm of Lake Martin Resort when the criteria defined in Table 4.7 occurs, or expected to occur.

Table 4.7. Forecast Weather Warning Criteria and Minimum Desired Lead-Times.

Warning Type	Criteria	Desired Lead Time
Tornadoes	Tornado or Funnel Cloud	15 Minutes
Severe Thunderstorm	Damaging Winds ≥ 50 kts associated with thunderstorms and/or Damaging Hail ≥ 3/4 inch at Lake Martin	60 Minutes
Moderate Thunderstorm	Strong Winds ≥ 35 kts and < 50 kts associated with thunderstorms and/or Large Hail ≥1/4 inch but < 3/4 inch at Lake Martin	60 Minutes
Damaging Winds	Surface winds not associated with thunderstorms ≥ 50 kts	60 Minutes
Strong Winds	Surface winds not associated with thunderstorms ≥ 35 kts but < 50 kts	60 Minutes

4.10.3. Observed Weather Warnings. 26 OWS will issue an observed weather warning for lightning within 5 nm of Lake Martin Resort when the criteria defined in Table 4.8 occurs. Since 26 OWS is limited to cloud-to-ground strike data from the National Lightning Detection Network, it does not have the capability to detect or observe other lightning strike occurrences (e.g., cloud-to-cloud lightning).

Table 4.8. Observed Weather Warning Criteria and Minimum Desired Lead-Times.

Criterion	Desired Lead-Time
Lightning Within 5 NM of Lake Martin Resort	First Observed

4.10.4. Notification Hours. 26 OWS will issue all watches and warnings and notify Lake Martin 24 hours a day, 7 days a week.

4.11. Vigilant Warrior (Lake Jordan).

4.11.1. The Officer Training School (OTS) and AFROTC do periodic training at Vigilant Warrior (32º 38' 43" N 86º 16' 39" W). The 26 OWS added the OTS Operation Control Center phone number (DSN 493-9675) to their IWWC notification list for the communications site (MIDW), which is collocated with Vigilant Warrior at Lake Jordan.

4.11.2. Weather Watches. 26 OWS will issue a forecast weather watch for within 5 nm of Vigilant Warrior when the potential for the criteria defined in Table 4.9 exists.

Table 4.9. Forecast Weather Watch Criteria and Minimum Desired Lead-Times.

Watch Type	Criteria	Desired Lead Time
Tornadoes	Potential for Tornado or Funnel Cloud	60 Minutes prior to warning
Severe Thunderstorm	Potential for Damaging Winds ≥ 50 kts associated with thunderstorms and/or Damaging Hail ≥ 3/4 inch at Jordan Lake	60 Minutes prior to warning
Moderate Thunderstorm	Potential for Strong Winds ≥ 35 kts and < 50 kts associated with thunderstorms and/or Large Hail ≥1/4 inch but < 3/4 inch at Jordan Lake	60 Minutes prior to warning
Damaging Winds	Potential for surface winds not associated with thunderstorms ≥ 50 kts	60 Minutes prior to warning
Strong Winds	Potential for surface winds not associated with thunderstorms ≥ 35 kts but < 50 kts	60 Minutes prior to warning
Heavy Rain	Potential for Heavy Rain ≥ 2 inches within 12 hrs	60 Minutes prior to warning
Heavy Snow	Potential for Heavy Snow ≥ 2 inches within 12 hrs	60 Minutes prior to warning
Freezing Precipitation	Potential for Freezing Precipitation (Any Intensity)	60 Minutes prior to warning
Lightning	Potential for Lightning within 15 NM*	30 Minutes
An * denotes deviation from AFMAN 15-129Vol 1.		

4.11.3. Forecast Weather Warnings. Forecast warnings are issued IAW AFMAN 15-129 Vol 1. 26 OWS will issue a forecast weather warning for within 5 nm of Vigilant Warrior when the criteria defined in Table 4.10 occurs, or expected to occur.

Table 4.10. Forecast Weather Warning Criteria and Minimum Desired Lead-Times.

Warning Type	Criteria	Desired Lead Time
Tornadoes	Tornado or Funnel Cloud	30 Minutes
Severe Thunderstorm	Damaging Winds ≥ 50 kts associated with thunderstorms and/or Damaging Hail ≥ 3/4 inch at Jordan Lake	120 Minutes
Moderate Thunderstorm	Strong Winds ≥ 35 kts and < 50 kts associated with thunderstorms and/or Large Hail ≥1/4 inch but < 3/4 inch at Jordan Lake	90 Minutes
Damaging Winds	Surface winds not associated with thunderstorms ≥ 50 kts	120 Minutes
Strong Winds	Surface winds not associated with thunderstorms ≥ 35 kts but < 50 kts	90 Minutes
Heavy Rain	Heavy Rain ≥ 2 inches within 12 hrs	90 Minutes
Heavy Snow	Heavy Snow ≥ 2 inches within 12 hrs	90 Minutes
Freezing Precipitation	Freezing Precipitation (Any Intensity)	60 Minutes
An * denotes deviation from AFMAN 15-129Vol 1.		

4.11.4. Observed Weather Warnings. Observed weather warnings are issued IAW AFMAN 15-129 Vol 1. The 26 OWS will issue an observed weather warning for within 5 nm of Vigilant Warrior when the criterion defined in Table 4.11 occurs. Since 26 OWS is limited to cloud-to-ground strike data from the National Lightning Detection Network, it does not have the capability to detect or observe other lightning strike occurrences (e.g., cloud-to-cloud lightning).

Table 4.11. Observed Weather Warning Criteria and Minimum Desired Lead-Times.

Criteria	Desired Lead-Time
Lightning within 15 NM of Vigilant Warrior	First Observed

4.12. Severe Weather Action Procedures (SWAP).

4.12.1. SWAP Responsibilities. These procedures are in place to ensure sufficient personnel are available during potential/actual severe weather events or during meteorological/operational events critical to mission success. Severe weather is defined as any weather phenomenon considered critical enough by the customer to require advance/special notice and subsequent actions to prevent serious injury or damage to personnel, property, or resources. It is imperative for timely and accurate dissemination of all-weather watches, warnings and advisories to Maxwell AFB agencies to ensure personnel and resource protection. There is a two-tier system with Maxwell Weather and 26 OWS sharing responsibilities for SWAP and resource protection.

4.12.2. Maxwell Weather Responsibilities. Maxwell Weather will perform the Exploitation Unit SWAP responsibilities as defined in AFMAN 15-129 Vol 2 and AFI 10-206, *Operational Reporting*. More specifically, Maxwell Weather will accomplish the following actions:

4.12.2.1. Notification. The on duty weather forecaster will notify the SWAP standby member(s) according to the following guidance:

4.12.2.1.1. During weekday normal duty hours, the duty forecaster will implement SWAP by notifying the Maxwell Weather manager and/or the SWAP standby member

in the office or by phone whenever one or more conditions in Table 4.12 are met. It is likely that the above personnel are present in the weather office and do not need to be recalled/activated.

4.12.2.1.2. During weekend normal duty hours, the duty forecaster will implement SWAP by notifying the standby member by phone whenever one or more conditions in Table 4.12 are met.

4.12.2.2. Standby/Recall.

4.12.2.2.1. During Maxwell Weather non-duty hours, the 26 OWS will notify the Maxwell Command Post at DSN 493-7474 of any Watch, Warning, or Advisory issued during METWATCH of the Maxwell AFB operations area.

4.12.2.2.2. The weather manager and/or the SWAP standby member will analyze current atmospheric conditions and discuss the forecast with the 26 OWS Forecaster/Regional Weather Supervisor.

4.12.2.2.3. Activate SWAP whenever one or more of the warnings in Table 4.12 are issued.

Table 4.12. Warnings Requiring Notification/Activation of SWAP Standby Member.

Tornado/Funnel Cloud[1]
Severe Thunderstorm[1]
Damaging Winds[1]
Freezing Precipitation
Snow Accumulation
Blizzard Conditions
Note 1: Watch or Warning. Note 2: In the event of unforeseen circumstances, such as a communications failure or a critical equipment outage, Maxwell Weather will implement SWAP at the 26 OWS' request. The 26 OWS, as the agency ultimately responsible for forecast watch/warning support, has this prerogative in the interest of Maxwell AFB resource protection and flight safety.

4.12.3. Activation. The weather forecaster on duty will discuss the meteorological situation, manning requirements, and recall of additional personnel (or place on standby) with the SWAP standby member. (If the SWAP standby member is unavailable, coordinate with the Maxwell Weather manager). If deemed necessary, the SWAP standby member will report to the weather office no later than 30 minutes after notification by the duty forecaster. Once the SWAP standby member arrives, they will assist in evaluating the situation, determine the need to recall more personnel, and execute SWAP duties/responsibilities in Table 4.13.

Table 4.13. SWAP Duties/Responsibilities.

Duty Forecaster	
1.	Notify/recall SWAP Standby Member (Team Chief). Phone numbers found on the Recall Roster.
2.	Constantly coordinate with the 26 OWS on the issuance of Watches/Warnings.
3.	Eyes Forward - intensify monitoring of local and area weather conditions to enhance METWATCH and MISSIONWATCH.
4.	Notify appropriate agencies of the issuance of Watches/Warnings. Note: Call Command Post and notify them immediately when a tornado is occurring or is within 10 minutes of occurring within 5NM of the Maxwell and/or Gunter and they will activate siren(s).
5.	Advise senior base leadership of the situation when warranted.
6.	Review SWAP Standby Member/Team Chief checklist and begin any duties, as necessary, until the member arrives.
7.	Conduct a concise forecast discussion of the current situation to apprise SWAP Standby Member/Team Chief upon their arrival.
8.	If necessary, augment weather observations in accordance with METAR /SPECI criteria and AFMAN 15-111.
9.	Issue observed Warnings/Advisories.
10.	Review PIREPs, SIGMETs, and area NWS products for severe weather reports. If applicable, notify the 26 OWS and incorporate data into products.
11.	Update Mission Weather Products (MWPs) as needed.
12.	Work closely with the SWAP members.
13.	Provide inputs to post-event OPREP-3 report (if required).
SWAP Standby Member/Team Chief	
1.	Report to the Maxwell Weather office within 30 minutes of initial notification. Determine if the situation warrants the recall/stand-by of additional personnel. Notify 42 OSS/CC of after-hours recall.
2.	Upon arrival, receive initial forecast discussion from Duty Forecaster.
3.	When time allows, conduct a METCON with the 26 OWS Forecaster/Zone Supervisor.
4.	Assume weather radar operator duties if other personnel are unavailable.
5.	Ensure duty position delegation and members' performance of assigned tasks (combine duty positions when necessary). a. Forecaster b. Radar operator

6.	Ensure the following tasks are accomplished on a recurring basis: a. Recall additional personnel if needed. b. Adjust duties as necessary. c. As requested, keep senior leadership, command post and customers apprised of latest developments. d. Keep personnel focused on assigned tasks. e. Ensure issuance and notification of all applicable watches/warnings/advisories. f. Review all forecast products for accuracy and horizontal consistency (e.g., watches/warnings/advisories, TAFs, and MWPs). g. Provide meteorological expertise and guide decision-making process.
7.	Conduct post-event review and discussion providing team members with feedback (positive and negative).
8.	Consolidate inputs and coordinate with the 26 OWS for OPREP-3 or HOMELINE report. Provide information to Maxwell Command Post (if required).
RADAR Operator	
1.	Interrogate storms and related phenomena using RADAR; during thunderstorms use lightning detection data.
2.	Keep Duty Forecaster and Team Chief informed of local severe activity.
3.	During tornado and thunderstorm events, provide the duty forecaster with storm positions and movements.
4.	During thunderstorm events, advise SWAP members when thunderstorms are within 10nm and 5nm.
5.	Answer phones and questions. Prioritize calls for the Duty Forecaster and Team Chief. Direct calls from unofficial sources to 42 ABW/PA.
6.	Answer PMSV calls.
7.	Assist other team members as needed.
8.	Archive data if deemed necessary.
9.	Work closely with other SWAP members. Allow them to accomplish tasks, which will free the duty forecaster to handle critical tasks such as watch/warning/advisory issuance/notification, MWP amendments and coordination with the 26 OWS.
10.	If severe criteria occurs, archive radar data.
11.	Provide inputs to OPREP-3 report (if required).

4.12.4. Post Event Procedures. If severe weather actually occurs, execute the following procedures if necessary, by Maxwell Weather:

4.12.4.1. OPREP-3 BEELINE Reporting. When significant weather occurs and results in Class A damage, base closure, or mission degradation. The following information will be provided to the Maxwell Command Post: actual severe weather experienced; Terminal Aerodrome Forecast (TAF) valid at the time of occurrence; any watches, warnings and or advisories issued to include actual and desired lead-time; and operational status of meteorological equipment.

4.12.4.2. CCIR Reporting. When weather related events that do not meet BEELINE reporting criteria occur result in aircraft damage, injuries, significant impact to student training, cancellation of flying or technical training, and restricted duty hours or delays in

reporting for extended time, Maxwell Weather will provide weather information to the Maxwell Command Post for CCIR inclusion. Maxwell Weather will notify the 26 OWS and AETC/A3OW of OPREP-3 or HOMELINE reports and included information.

4.12.4.3. Maxwell Weather will request the 26 OWS provide required information, if needed, by performing a weather data save.

4.12.4.4. Maxwell Weather will provide the 26 OWS with severe weather reports not normally available through standard observations, immediately after fulfilling any local distribution requirement. If this is not possible, Maxwell Weather will pass the reports as soon as possible, so the 26 OWS can use the reports during post-analysis and verification.

4.12.4.5. If the event fulfills a semi-annual SWAP tests, Maxwell Weather will complete a memorandum for record documenting the event. Additionally, Maxwell Weather will contact 26 OWS leadership and provide them with the memorandum or an e-mail for record.

ANDREA D. TULLOS, Col, USAF
Commander

Attachment 1

GLOSSARY OF REFERENCES AND SUPPORTING INFORMATION

References

42 ABW Plan 10-2, *Comprehensive Emergency Managent Plan (CEMP)*, 1 October 2007

AFPD 15-1, *Air Force Weather Operations*, 19 February 2010

AFI 10-206, *Operational Reporting*, 11 June 2014

AFI 11-202V3, *General Flight Rules*, 7 November 2014

AFI 13-204V3, *Airfield Operations Procedures and Programs*, 1 September 2010

AFI 15-128, *Air Force Weather Roles and Responsibilities*, 7 February 2011

AFMAN 15-111, *Surface Weather Observations*, 27 February 2013

AFMAN 15-124, *Meteorological Codes*, 28 February 2013

AFMAN 15-129Vol 1, *Air and Space Weather Operations – Characterization*, 6 December 2011

AFMAN 15-129Vol 2, *Air and Space Weather Operations – Exploitation*, 7 December 2011

FAA Order 7110.65, *Air Traffic Control*, 8 January 2015

FCM-P15-2015, *National Hurricane Operations Plan*, 2015

MAXWELLAFBI 13-202, *Airfield Operations*, 14 December 2015

Prescribed Forms

Maxwell AFB Form 27, *Aircrew Briefing Log*

Maxwell AFB Form 28, *Pilot-to-Metro-Service Log*

Adopted Forms

DD Form 175-1, *Flight Weather Briefing*

AF Form 847, *Recommendation for Change of Publication*

Abbreviations and Acronyms

42 ABW—42d Air Base Wing

ACFT MISHAP—Aircraft Mishap

AETC—Air Education and Training Command

AFW—Air Force Weather

557 WW—Air Force Weather Agency

ALSTG—Altimeter

AMD—Amendment

AOL—Alternate Operating Location

ATC—Air Traffic Control

AWN—Automated Weather Network

BKN—Broken

BWW—Basic Weather Watch

CAP – USAF—Civil Air Patrol – United States Air Force

CB—Cumulonimbus

COOP—Continuity of Operations Plan

CU—Characterization Unit

CWW—Cooperative Weather Watch

DLT—Desired Lead Time

EOC—Emergency Operations Center

EU—Exploitation Unit

FLIP—Flight Information Publication

GPS—Global Positioning System

HURCON—Hurricane Condition

ICAO—International Civil Aviation Organization

IRC—Instrument Refresher Course

IWWC—Integrated Weather Warning Capability

JET—Joint Environmental Toolkit

KT—Knot

LLWS—Low-Level Wind Shear

MEFP—Mission Execution Forecast Process

METAR—Meteorological Aviation Report

METCON—Meteorological Conference or Discussion

METWATCH—Meteorological Watch

METSAT—Meteorological Satellite

MISSIONWATCH—Mission Meteorological Watch

MWP—Mission Weather Product

NHC—National Hurricane Center

NIMA—National Imagery Mapping Agency

NLT—No Later Than or Negative Lead Time

NM—Nautical Mile

NWS—National Weather Service

OVC—Overcast

OWS—Operational Weather Squadron

PIREP—Pilot Weather Report

PMSV—Pilot-to-Metro Service

QRC—Quick Reaction Checklist

RVR—Runway Visual Range

SDNCO—Senior Duty Noncommissioned Officer

SDO—Senior Duty Officer

SOP—Standing Operating Procedures

SPECI—Special Observation

SWAP—Severe Weather Action Procedures

TAF—Terminal Aerodrome Forecast

TAS—Telephone Alert System

TEMPO—Temporary

TC-TAP—Tropical Cyclone Threat Assessment Product

VFR—Visual Flight Rules

VT—Valid Time

WA—Weather Advisory

WSD—Weather Support Document

WSR-88D—NEXRAD (Next Generation Doppler Radar)

WW—Weather Warning

WWA—Watches, Warnings, and Advisories

Terms

26 Operational Weather Squadron (26 OWS)—Located at Barksdale AFB, LA to provide primary Terminal Airdrome Forecasts, Weather Watches and forecasted Warnings and Advisories. The 26 OWS is the central forecasting facility for South-eastern CONUS weather operations.

Aircraft Mishap—Any mishap in which there is intent for flight and reportable damage to a DOD aircraft.

Amendment (AMD)—Used as a message modifier when transmitting an aerodrome forecast amendment.

Augmentation—Augmentation is the process of manually adding or editing data in an observation generated by the FMQ-19 by supplementing (adding) or back-up (editing).

Basic Weather Watch (BWW)—A BWW is normally conducted by Maxwell Weather when the FMQ-19 is in augmentation or manual mode because they cannot monitor the atmospheric

conditions continuously due to other weather duties. To determine the need for a SPECI observation during a BWW, weather forecasters will recheck weather conditions, at intervals not to exceed 20 minutes since the last observation/recheck.

Climatology—The historical records of weather conditions measured or observed at a specific location. Generally, a 10- to 25-history is common and useful in planning operations beyond 5 to 7 days. It usually describes the average (or mean) conditions such as average high and low temperatures and extremes.

Cooperative Weather Watch—Air Traffic Control personnel notify the forecaster of significant changes from reported conditions, as duty priorities permit.

Desired Lead-time (DLT)—The amount of advance notice a supported agency desires before the onset of a particular weather phenomenon.

Eyes Forward—Maxwell Weather forecasters are the eyes forward for the forecasters in the Operational Weather Squadron (OWS) and integrate weather radar data, meteorological satellite imagery, lightning detection readouts, and non-standard weather data systems (vertical profilers, mesonet data, etc.) to create an integrated weather picture and near-term trend forecasts.

Forecast Weather Advisory (FWA)—A weather advisory issued when the customer requires advance notification of an impending weather condition with sufficient time for protective actions.

Integrated Weather Warning Capability (IWWC)—Automated system used by the 26 OWS to automatically disseminate weather watches, warnings, and advisories over the JET, by phone, and over their web page.

Issue Time—The time when an agency is notified of a watch, warning, or advisory. When more than one agency is notified, the issue time is the time the last agency is notified. Follow-up notifications are not considered when determining issue time.

Joint Environmental Toolkit (JET)—JET is a web based weather dissemination system. Products available for users on JET include weather warnings, weather watches, weather advisories, live sensor data, surface weather observations, and terminal aerodrome forecasts. All data is site-specific for Maxwell AFB and Gunter Annex. Use of JET requires a username and password provided by Maxwell Weather.

Limited Weather Observation—The limited weather observation is a surface weather observation taken by certified non-weather personnel. Units that take limited weather observations must relay these to Maxwell Weather in support of the Cooperative Weather Watch program.

Maxwell Weather—The weather facility and or weather personnel located in Bldg 844, Maxwell AFB AL assigned as 42 OSS/OSW. Maxwell Weather provides direct operational support at the tactical/base level.

METAR Observation—Meteorological Aviation Report. A routine, hourly surface weather observation. It contains a report of wind, visibility, runway visual range, present weather, sky condition, temperature, dew point, and altimeter setting. In addition, significant remarks are appended to the METAR observation.

METWATCH—Monitoring aerospace weather for a route, area, or terminal and advising concerned organizations when phenomena that could affect their operations or pose a hazard to life or property occur or will occur.

Mission Weather Product (MWP)—Any weather product or group of weather products generated by Maxwell Weather that is integrated into the military decision making process. MWPs may be planning or execution products and are not limited to aviation missions.

MISSIONWATCH—The monitoring of aerospace weather for a specific mission (i.e., ground, air, or space) and informing supported agencies when unforecast mission-limiting phenomena could impact operations.

Observed Weather Advisory (OWA)—A weather advisory issued when a particular weather event first occurs and the customer does not require advanced notification.

Operational Weather Squadron (OWS)—An organization comprised of management, technician, and training personnel responsible for providing regional weather support. Their mission is to produce theater-scale tailored weather forecast products and services to customers within their area of responsibility.

Pilot Report (PIREP)—A report of in-flight weather provided by an aircrew member.

Pilot to Metro Service (PMSV)—A radio system with dedicated frequency (342.3 MHz) for contact between airborne pilots and weather facilities.

Severe Weather—Any weather condition that poses a hazard to property or life.

SPECI Observation—An unscheduled observation taken when significant changes in weather elements meet special criteria. All SPECIs shall be made as soon as possible after observation of relevant criteria.

Surface Weather Observation—An evaluation of one or more meteorological elements that describe the state of the atmosphere at the location where the observation is taken. Observations are taken IAW AFMAN 15-111, *Surface Weather Observations*, disseminated locally and via longline communications circuits during hours of operation.

Telephone Alert System (TAS)—A system used by the Maxwell Command Post to notify key agencies of significant events.

Temporary (TEMPO)—Indicates temporary fluctuations in forecast conditions. Conditions described will last for less than one hour and cover less than half of the designated TEMPO period.

Terminal Aerodrome Forecast (TAF)—A weather forecast prepared by the 26 OWS composed of required weather elements for Maxwell AFB airfield and covers a 24-hour period. Forecast elements in the body of the forecast text refer to the area within 5 NM of the center of the aerodrome complex. Operationally significant elements outside this area are included in remarks (e.g., TS OMTNS or VCTS). The term VC (vicinity) refers to the area between 5 NM and 10 NM of the aerodrome complex.

Weather Advisory (WA)—A special notice provided to a supported agency when an established weather condition that could affect its operation is occurring or is expected to occur.

Weather Surveillance Radar-1988, Doppler (WSR-88D)—Commonly referred to as NEXRAD. Doppler weather radar located at Carrville AL and maintained by 42 OSS/OSM, designed to: provide range and azimuth information on precipitation within a radius of 248 nautical miles (NM), wind velocity, storm structure, hail detection, and total precipitation within 124 NM, and tornado detection within 60 NM. The East Alabama WSR-88D is part of the national Doppler weather radar network, and is controlled by the National Weather Service office in Birmingham AL.

Weather Warning (WW)—A special notice to notify operational commanders when an established weather condition of such intensity as to pose a hazard to life or property is occurring or is expected to occur. Weather warnings provide concise information outlining environmental threats and are used by operational commanders to make force protection decisions.

Weather Watch—A special notice provided to supported customers that alerts them of a potential for weather conditions of such intensity as to pose a hazard to life or property for which the customer must take protective action.

END GLOSSARY

Attachment 2

SPECIAL/LOCAL OBSERVATION CRITERIA

A2.1. Special (SPECI) Criteria.

A2.1.1. Visibility. Surface visibility as reported in the body of the report decreases to less than or, if below, increases to equal or exceed.

A2.1.1.1. 3 miles (AFMAN 15-111).

A2.1.1.2. 2 1/4 miles (DOD FLIPS).

A2.1.1.3. 2 miles (AFMAN 15-111 and DoD FLIPS).

A2.1.1.4. 1 5/8 miles (DoD FLIPS).

A2.1.1.5. 1 1/2 miles (DoD FLIPS).

A2.1.1.6. 1 1/4 miles (DoD FLIPS).

A2.1.1.7. 1 1/8 miles (DoD FLIPS) (when Approach Lighting Systems not operational).

A2.1.1.8. 1 mile (AFMAN 15-111 and DoD FLIPS).

A2.1.1.9. 3/4 mile (DoD FLIPS).

A2.1.1.10. 5/8 mile (DoD FLIPS).

A2.1.1.11. 1/2 mile (DoD FLIPS).

A2.1.1.12. 1/4 mile (AFMAN 15-111).

A2.1.2. Ceiling. The ceiling (rounded off to reportable values) forms or dissipates below, decreases to less than, or if below, increases to equal or exceed.

A2.1.2.1. 3,000 feet (AFMAN 15-111).

A2.1.2.2. 2,000 feet (AFI 11-202V3).

A2.1.2.3. 1,500 feet (AFMAN 15-111).

A2.1.2.4. 1,000 feet (AFMAN 15-111).

A2.1.2.5. 800 feet (AFMAN 15-111).

A2.1.2.6. 700 feet (AFMAN 15-111).

A2.1.2.7. 600 feet (DoD FLIPS).

A2.1.2.8. 500 feet (AFMAN 15-111).

A2.1.2.9. 400 feet (DoD FLIPS).

A2.1.2.10. 200 feet (DoD FLIPS).

A2.1.3. Sky Condition. A layer of clouds or obscuring phenomena aloft observed below 600 feet and no layer aloft reported below this height in the previous METAR or SPECI.

A2.1.4. Wind Shift. Wind direction changes by 45 degrees or more in less than 15 minutes and the wind speed is 10 knots or more throughout the wind shift.

A2.1.5. Squall. When squalls occur.

A2.1.6. Volcanic Eruption. When eruption first noted.

A2.1.7. Thunderstorm (occurring at the station). Begins or ends.

A2.1.8. Precipitation.

A2.1.8.1. Hail begins or ends.

A2.1.8.2. Freezing precipitation begins, ends, or changes intensity.

A2.1.8.3. Ice pellets begin, end, or change in intensity.

A2.1.8.4. Any other type of precipitation begins or ends.

NOTE: Except for freezing rain, freezing drizzle, ice pellets, and hail, a SPECI is not required for changes in type (e.g., drizzle changing to snow grains) or the beginning or ending of one type while another is in progress (e.g., snow changing to rain and snow).

A2.1.9. Tornado or Funnel Cloud.

A2.1.9.1. Is observed.

A2.1.9.2. Disappears from sight or ends.

A2.1.10. Runway Visual Range (RVR).

A2.1.10.1. Prevailing visibility is first observed less than or equal to 1SM, and again when prevailing visibility goes above 1SM.

A2.1.10.2. RVR for active runway decreases to less than, or if below, increases to equal or exceed

A2.1.10.2.1. 6000 feet (AFMAN 15-111).

A2.1.10.2.2. 5500 feet (DoD FLIPS) (when Approach Lighting System not operational).

A2.1.10.2.3. 5000 feet (AFMAN 15-111).

A2.1.10.2.4. 4000 feet (DoD FLIPS).

A2.1.10.2.5. 3500 feet (DoD FLIPS).

A2.1.10.2.6. 2400 feet (AFMAN 15-111 and DoD FLIPS).

A2.1.10.2.7. 2000 feet (AFMAN 15-111).

A2.1.10.3. RVR is first determined as unavailable (RVRNO) for the runway in use, and when it is first determined that the RVRNO report is no longer applicable, provided conditions for reporting RVR exist.

A2.1.11. Upon Resumption of Observing Function. A SPECI observation will be taken as soon as possible after the weather forecaster returns to duty following a break in observing coverage or augmentation unless a record observation is filed during that 15-minute period.

A2.1.12. Aircraft Mishap. Disseminated regardless of operating mode, i.e. augment, auto, or manual.

A2.1.13. Miscellaneous. Any other meteorological situation that in the weather forecaster's opinion is critical.

A2.2. LOCAL Criteria. Single element LOCALs are only taken for altimeter setting changes during back-up of the FMQ-19 pressure sensor. LOCAL altimeter setting observations will be taken at an interval not to exceed 35 minutes when a change exists of 0.01 inch Hg (0.3 hPa) or more since the last ALSTG value.

Attachment 3

TAF SPECIFICATION AND AMENDMENT CRITERIA

A3.1. As a minimum, TAFs will specify time of occurrence to the nearest hour (and minute as appropriate), the duration, and intensity of the standard criteria listed in Table A3.1. Amend TAFs when the criteria occur or expected to occur, but were not specified in the forecast. In addition, amend the TAF when the criteria is in the forecast but no longer occurring or expected to occur.

Table A3.1. TAF Specification/Amendment Criteria.

Forecast Element/Occurrence	TAF Amendment Criteria	
CEILING or VISIBILITY observed or later expected to decrease to less than, or if below, increase to equal or exceed:	Category	Limits (Ceiling/Visibility)
	E	$\geq$ 2000 ft/3 miles
	D	< 2000/3 and $\geq$ 1000/2[1]
	C	< 1000/3 and $\geq$700/2[1]
	B	< 700/2 and $\geq$200/½
	A	< 200/½
SURFACE WINDS	SPEED The difference between the predominant wind speed and the forecast wind speed is $\geq$ 10 knots and/or the difference between the observed gusts is $\geq$ 10 knots from the forecast gust.	
	DIRECTION A change > 30 degrees when the predominant wind speed or gusts are expected to be over 15 knots.	
ICING not associated with thunderstorms, from the surface to 10,000 feet AGL.	The beginning or ending of icing first meets, exceeds, or decreases below moderate or greater thresholds and not specified in the forecast.	
TURBULENCE (for Cat II aircraft), not associated with thunderstorms, from the surface to 10,000 feet AGL.	The beginning or ending of turbulence first meets, exceeds, or decreases below moderate or greater thresholds and not specified in the forecast.	
WARNINGS and ADVISORIES (TAF-amendable advisories including Low-Level Wind Shear) Watches may or may not be specified in a TAF depending on situation.	Occur, or are expected to occur, during the forecast period, but were not specified in the forecast. Specified in the forecast, but are no longer occurring or expected to occur during the forecast period.	
Altimeter Setting	Altimeter setting meets or exceeds 31.00 INS and was not specified in the forecast Altimeter setting, if above, drops below 31.00 INS and was not specified during the forecast period Altimeter setting drops below 28.00 INS and was not specified in the forecast	

	Altimeter setting, if below 28.00 INS, increases above 28.00 INS and was not specified in the forecast"
Forecast Weather Advisory Criteria issued for amendable TAF criteria.	Occur, or are expected to occur during the forecast period, but were not specified in the forecast Specified in the forecast but are no longer expected to occur during the forecast period
THUNDERSTORMS	Incorrect forecast start or end times
TEMPO conditions	TEMPO conditions become predominant conditions. TEMPO conditions do not occur as forecast. No longer expecting TEMPO conditions to occur.
PREDOMINANT conditions	Forecast conditions occur before the beginning of the specified period of change and will persist. Forecast conditions do not occur within 30 minutes after the specified time. No longer expecting forecasted conditions to occur.
REPRESENTATIVE conditions	Forecast conditions considered unrepresentative of existing or forecasted conditions and amending the forecast improves safety, flight planning, operations efficiency, or assistance to in-flight aircraft.
Note 1: The lower ceiling or visibility value determines forecast ceiling/visibility category.	

Attachment 4

357 AS MWP SPECIFICATION AND AMENDMENT CRITERIA

A4.1. MWP Specifications. Forecasts will specify time of occurrence to the nearest hour, the duration, and the intensity, where applicable, when one or more of the following weather elements is expected to occur within the valid period of the forecast.

Table A4.1. MWP Specification Criteria.

Forecast Element	Criteria
MAXWELL AFB CEILING or VISIBILITY expected to decrease to less than, or if below, increase to equal or exceed:	3000/3 and $\geq$ 1500/3
	< 1500/3 and $\geq$ 1000/2
	< 1000/2 and $\geq$ 200/½
	< 200/½
SURFACE WINDS	SPEED change of 10 knots or more
	DIRECTION change > 30 degrees when the predominant wind speed or gusts are expected to be over 15 knots.
ICING/TURBULENCE not associated with thunderstorms	Begins or ends. Up to and including within 5000ft of flight level.
WARNING and ADVISORY Criteria	Begin or end
THUNDERSTORMS	Begin or end
DROPZONE CEILING or VISIBILITY expected to decrease to less than, or if below, increase to equal or exceed:	< 1500/3
DROPZONE TSTMS/LTG	Within 5NM
DROPZONE WINDS	$\geq$ 25 knots

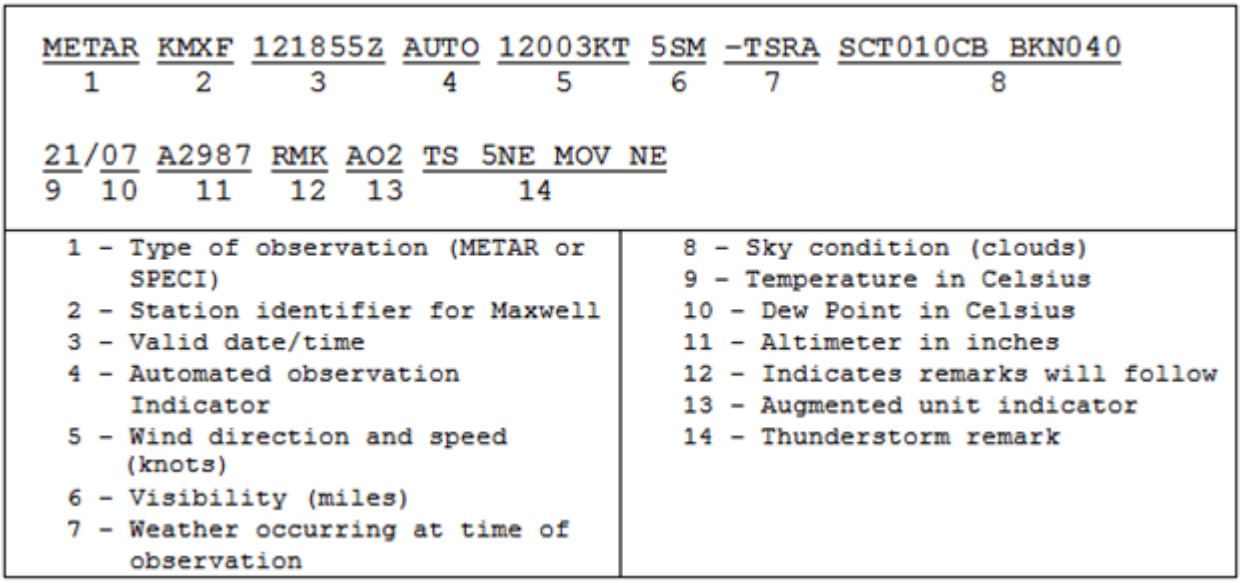
A4.2. MWP Amendments. The MWP will be amended when the criteria above occur or are expected to occur, but were not specified in the forecast. In addition, amend the MWP when the criteria specified in the forecast is no longer occurring or expected to occur.

Attachment 5

JET DISSEMINATION FORMATS

A5.1. Surface Weather Observation. This is a partial list of the most common elements in a surface weather observation. For more information on the surface weather observation code (METAR), see AFMAN 15-111, Surface Weather Observations.

Figure A5.1. Surface Weather Observation Code Breakdown.



A5.2. Terminal Aerodrome Forecast (TAF). This is a partial list of the most common elements in a terminal aerodrome forecast. For more information on the terminal aerodrome forecast code, see AFMAN 15-124, Meteorological Codes.

Figure A5.2. Terminal Aerodrome Forecast Code Breakdown.

```
TAF KMXF 1220/1402 24006KT 8000 -SHRA BKN030 OVC200 QNH3022INS
 1   2      3        4     5    6        7           8
   TEMPO 1220/1222 VRB15G25KT 4800 -TSRA BKN010CB OVC020
     9       10
   BECMG 1311/1312 11004KT 9000 -SHRA FEW030 BKN080 OVC200
     11      12
   QNH3019INS T18/1320Z T12/1309Z
                  13       14
```

1 - TAF indicates terminal aerodrome forecast
2 - KMXF is station identifier for Maxwell
3 - Valid period date/time
4 - Wind direction and speed (knots)
5 - Visibility (meters)
6 - Current Weather Conditions
7 - Sky Condition (clouds)
8 - Altimeter in Inches
9 - TEMPO indicates conditions will vary for the valid time period
10 - Valid time period for TEMPO conditions
11 - BECMG indicates conditions will change during time indicated
12 - Time period BECMG group will occur
13 - Maximum temperature during forecast valid period and time of occurrence
14 - Minimum temperature during forecast valid period and time of occurrence

A5.3. Pilot Report (PIREP). This is a partial list of the most common elements in a pilot report. For more information on the pilot report code, see AFMAN 15-124, Meteorological Codes.

Figure A5.3. Pilot Report (PIREP) Code Breakdown.

```
KMXF UA /OV KMXF270020/TM 1320/FL230/TP C130/SK BKN040-
            1          2      3      4         5
   TOP080/WX FV02SM -RA BR/TA M22/WV 27040KT/TB LGT CHOP 200-
               6            7        8              9
   240/IC NEG/RM LLWS -10KT SFC-010 DURGC RWY 33 KMXF;
       10   11                  12
```

1 - Location of aircraft
2 - Time of report
3 - Flight level
4 - Aircraft type
5 - Sky Condition (clouds)
6 - Visibility (miles) and weather occurring
7 - Temperature in Celsius at flight level
8 - Wind direction and speed in knots at flight level
9 - Turbulence
10 - Icing
11 - RM indicates remarks will follow
12 - Remarks

A5.4. Weather Watches, Warnings, and Advisories.

Figure A5.4. Weather Watch, Warning, and Advisory Code Breakdown.

Weather Watch 01-005 for Maxwell AFB (KMXF) Valid 10/0400Z
1 2 3
(9/2200L) to 10/1200Z (10/0600L) Potential for Freezing
3 4
Precipitation (Any Intensity) is in effect at Maxwell AFB-
4
Gunter Annex.
4
Issued at 1/9/2011 1535Z
5

1 - Product type - Weather watch, warning or advisory 2 - Watch, warning, or advisory number 3 - Valid period. UFN indicates valid until further notice	4 - Text of watch, warning, or advisory 5 - Date/time product was issued

Figure A5.5. Example Weather Watches, Warnings, and Advisories.

WEATHER WATCH

Weather Watch 02-004 for Maxwell AFB (KMXF) Valid 6/2200Z (6/1600L) to 7/0300Z (6/2100L) Potential for Tornado exists within 5 nm. of Maxwell AFB-Gunter Annex.
Issued 2/6/2011 1508Z

WEATHER WARNING

Weather Warning 04-018 for Maxwell AFB (KMXF) Valid 13/1700Z (13/1200L) to 13/2100Z (13/1600L) Large Hail >= 3/4 in. maximum expected 1 in. is forecasted to occur at Maxwell AFB-Gunter Annex. Damaging Wings greater than or equal to 50 kts. maximum expected 60 kts. are forecasted to occur at Maxwell AFB-Gunter Annex.
Issued 4/13/2011 1412Z

WEATHER ADVISORY

Weather Advisory Valid 23/1349Z (23/0849L) UFN Observed Low Level Wing Shear occurring below 2000 ft AGL. at Maxwell AFB.
Issued 4/23/2011 1349Z

Attachment 6

WEATHER IMPACTS ON SUPPORTED UNITS

A6.1. The following table lists specific weather criteria, customers supported by Maxwell Weather, the weather impacts on their operations, and recommended actions customers take to mitigate or protect operations from those impacts. Weather watches alert customers to the potential for severe weather and allow them to prepare for actions noted under each criteria.

Table A6.1. Weather Impacts to Supported/Base Customers.

TORNADO WARNING		
CUSTOMER	**MISSION IMPACT**	**PROTECTIVE MEASURE**
All	Danger to life and property.	Take shelter immediately.
DAMAGING WINDS 50 KNOTS WARNING		
CUSTOMER	**MISSION IMPACT**	**PROTECTIVE MEASURES**
908 MXG, 357 AS, CAP-USAF	Cancels flight ops.	Reschedule flight ops. Hangar or tie down aircraft. Head into wind if uninstalled engines or cannot be tied down. Ensure installation of duct plugs and shields, raise flaps to full up. Fuel to fullest capacity, close all doors and hatches.
42 OSS/OSAX	1. Possible aircraft/equipment damaged. 2. Loose objects may cause damage.	1. Secure open canopies 2. Hangar as many aircraft as possible 3. Tie down aircraft 4. Secure loose items
AU	Cancels outdoor training	Direct students inside hardened buildings
OSAT (Tower)	Threat to personnel.	Evacuate control tower.
42 SFS	Threat to personnel training/Responding patrols	Cancel firing for Combat Arms. If visibility is significantly decreased, limit patrol movement to response only Close CVI/Installation gates at discretion of SF Operations Superintendent or Operations Officer. Threat to Equipment; Sky watch Towers are brought down.
42 CES	Increased unscheduled maintenance, damage to trees, buildings. Direction Change: Runway Change	1. Reschedule routine work. 2. Remove fallen trees, repair buildings
42 FSS	Threat to personnel	Notify all subordinate units Shutdown outdoor activities
Vigilant Warrior	Threat to personnel.	Vacate open areas and take cover in hardened buildings

Lake Martin Rec Area	Threat to recreation area and campers	Vacate open areas and Lake Martin and take shelter in hardened buildings
HAIL 3/4 INCH WARNING		
CUSTOMER	**MISSION IMPACT**	**PROTECTIVE MEASURES**
908 MXG, 357 AS, CAP-USAF	Cancels flight ops.	Reschedule flight ops. Hangar as many aircraft as possible
42 OSS/OSAX	Potential damage to aircraft	1. Secure open canopies 2. Hangar as many aircraft as possible
AU	Cancels outdoor training	Direct students inside hardened buildings
OSAT (Tower)	Threat to personnel.	Evacuate control tower at discretion of Watch Supervisor.
42 CES	Increased unscheduled maintenance, damage to trees, buildings.	1. Reschedule routine work. 2. Remove fallen trees, repair buildings
42 FSS	Threat to personnel	Notify all subordinate units Shutdown outdoor activities
42 SFS	Threat to personnel training	Direct students inside hardened facilities
42 SFS	Threat to personnel Training/Military Working Dogs (MWDs)	1. Secure MWDs kennel runs exterior dog doors. 2. Limit utilization for emergency responses only via coordination with the kennel master/trainer and at the discretion of operations superintendent/officer. 3. Cancel firing for Combat Arms
42 SFS	Threat to response vehicles	Possibly parked under hardened area parking structure until dispatched for emergency
42 SFS	Threat to personnel	Possibly shut down CVI/gates at discretion of operations superintendent/officer
42 SFS	Threat to equipment	Bring skywatch towers down.
Vigilant Warrior	Threat to personnel.	Vacate open areas and take cover in hardened buildings
Lake Martin Rec Area	Threat to recreation area and campers	Vacate open areas and Lake Martin and take shelter in hardened buildings
HIGH WIND 35 KNOTS BUT < 50 KNOTS WARNING		
CUSTOMER	**MISSION IMPACT**	**PROTECTIVE MEASURES**
908 MXG, 357 AS	Delays maintenance ops and cancels normal training missions.	All Rescheduled
CAP-USAF	Cancels flight ops.	Reschedule flight ops. Hangar aircraft
42 OSS/OSAX	1. Possible aircraft/equipment damaged. 2. Loose objects may cause damage.	1. Tie down aircraft or move into hangars. 2. Move loose equipment to storage. 3. Secure loose objects and check area for security. 4. Secure open canopies

AU	Reschedules outdoor training	Students train inside hardened buildings
42 CES	Increased unscheduled maintenance, damage to trees, buildings. Direction Change: Runway Change	1. Reschedule routine work. 2. Remove fallen trees, repair buildings
42 ABW/SFS	Loose objects may cause damage.	Advise personnel to secure all objects. Notify housing areas.
42 FSS	Threat to personnel	Notify all subordinate units Shutdown outdoor activities
42 SFS	Threat to personnel training	Direct students inside hardened facilities Cancel Firing for Combat Arms
42 SFS	Threat to Military Working Dogs (MWDs)	1. Secure MWDs kennel runs exterior dog doors. 2. Limit utilization for emergency responses only via coordination with the kennel master/trainer and at the discretion of operations superintendent/officer.
42 SFS	Threat to response vehicles	Possibly park vehicles under hardened area parking structure until dispatched for emergency
42 SFS	Threat to personnel	Possibly shut down CVI/gates at discretion of operations superintendent/officer
42 SFS	Threat to equipment	Bring skywatch towers down.
Vigilant Warrior	Threat to personnel.	Vacate open areas and take cover in hardened buildings
Lake Martin Rec Area	Threat to recreation area and campers	Vacate open areas and Lake Martin and take shelter in hardened buildings
HAIL 1/2 BUT < 3/4 INCH WARNING		
CUSTOMER	**MISSION IMPACT**	**PROTECTIVE MEASURES**
908 MXG, 357 AS	Delays maintenance ops and cancels normal training missions.	All Rescheduled
CAP-USAF	Cancels flight ops.	Reschedule flight ops. Hangar aircraft
42 OSS/OSAX	Possible aircraft/equipment damaged.	1. Move as aircraft into hangars. 3. Move loose equipment to storage. 4. Secure loose objects and check area for security. 5. Secure open canopies
AU	Reschedules outdoor training	Students train inside hardened buildings
42 CES	Increased unscheduled maintenance, damage to trees, buildings.	1. Reschedule routine work. 2. Remove fallen trees, repair buildings

	Direction Change: Runway Change	
42 ABW	Possible outside objects damaged.	Advise personnel to secure all objects. Notify housing areas.
42 FSS	Threat to personnel	Notify all subordinate units Shutdown outdoor activities
42 SFS	Threat to personnel training	Direct students inside hardened facilities
42 SFS	Threat to Military Working Dogs (MWDs)	1. Secure MWDs in kennel runs and close MWD exterior dog doors. 2. Limit utilization for emergency responses only via coordination with the kennel master/trainer and at the discretion of operations superintendent/officer.
42 SFS	Threat to response vehicles	Possibly parked under hardened area parking structure until dispatched for emergency
42 SFS	Threat to personnel	Possibly shut down CVI/gates at discretion of operations superintendent/officer
42 SFS	Threat to equipment	Bring down skywatch towers.
Vigilant Warrior	Threat to personnel.	Vacate open areas and take cover in hardened buildings
Lake Martin Rec Area	Threat to recreation area and campers	Vacate open areas and Lake Martin and take shelter in hardened buildings
LIGHTNING WATCH		
CUSTOMER	**MISSION IMPACT**	**PROTECTIVE MEASURES**
All	Danger to life and property.	Be prepared to take shelter immediately upon issuance of the lightning warning
42 FSS	Threat to personnel	Notify all subordinate units Shutdown outdoor activities
908 MXG, 357 AS, CAP-USAF	Potential to delay maintenance and refueling.	Be prepared to suspend maintenance and fueling operations.
Vigilant Warrior	Potential threat to personnel.	Be prepared to vacate open areas and take cover in hardened buildings
Lake Martin Rec Area	Potential threat to recreation area and campers	Be prepared to vacate open areas and Lake Martin and take shelter in hardened buildings
OBSERVED LIGHTNING WITHIN 5 NM WARNING		
CUSTOMER	**MISSION IMPACT**	**PROTECTIVE MEASURES**
All	Danger to life and property.	Take shelter immediately.
908 MXG, 357 AS, CAP-USAF	Delays maintenance and refueling.	Suspend maintenance and refueling.

42 OSS/OSAX	Delays aircraft recovery	Suspend aircraft recovery and fueling
AU	Cancels outdoor training	Direct students inside hardened buildings
42 LRS/LGRF, 42 OSS/OSAX	Threat to personnel.	Discontinue all fueling ops.
42 ABW Fire Dept.	Hazard to flight line ops.	Advise personnel to seek shelter.
Cadet and Gunter Pools	Threat to swimmers	Vacate swimmers from the pools.
42 FSS/FSC	Hazard on Golf Course	Vacate the Golf Course
42 SFS	Threat to personnel training	Direct students inside hardened facilities
42 SFS	Threat to Military Working Dogs (MWDs)	Direct MWD Teams to hardened structures until dispatched for emergency.
42 SFS	Threat to response vehicles	Possibly parked under hardened area parking structure until dispatched for emergency
42 SFS	Threat to personnel	Possibly shut down CVI/gates at discretion of operations superintendent/officer
42 SFS	Threat to equipment	Bring skywatch towers down.
Vigilant Warrior	Threat to personnel.	Take cover in hardened buildings
Lake Martin Rec Area	Threat to recreation area and campers	Vacate open areas and Lake Martin and take shelter in hardened buildings
FREEZING PRECIPITATION WARNING (ANY INTENSITY)		
CUSTOMER	**MISSION IMPACT**	**PROTECTIVE MEASURES**
908 MXG, 357 AS, CAP-USAF	Ice on aircraft/runway.	Cancel missions.
42 OSS/ALL	1. Light: Icing on aircraft. 2. Any Icing: Runway and taxiways hazardous.	Hangar aircraft
AU	Cancels outdoor training	Direct students inside permanent buildings
42 FSS	Threat to personnel	Notify all subordinate units Shutdown outdoor activities
42 SFS	Threat to personnel training	Direct students inside hardened facilities
42 SFS	Threat to Military Working Dogs (MWDs)	Minimize utilization via coordination with the kennel master/trainer and at the discretion of operations superintendent/officer.
42 SFS	Threat to response vehicles	Park vehicles until needed for emergency dispatch
42 SFS	Threat to personnel	Possibly shut down CVI/gates at discretion of operations superintendent/officer
42 SFS	Threat to equipment	Bring skywatch towers down.
42 CES	1. Roadways dangerous.	1. Plan alternate response routes. 2. Prioritize responses to alarms.

	2. Transformers may burst causing a loss of power and alarms may go off.	3. Decrease response speeds. 4. Sand roads.
HEAVY RAIN 2 INCHES IN 6 HOURS WARNING		
CUSTOMER	**MISSION IMPACT**	**PROTECTIVE MEASURES**
42 Maxwell CP	Lowland Flooding	Notify SFS of river levels
42 SFS	Lowland Flooding	Monitor / close floodgates
42 FSS/FSC	Golf Course Flooding	Close flooded holes
HEAVY SNOW 2 INCHES IN 12 HOURS WARNING		
CUSTOMER	**MISSION IMPACT**	**PROTECTIVE MEASURES**
908 MXG, 357 AS, CAP-USAF	1. Ice/snow on aircraft 2. Runway condition changes	Cancel missions and/or hangar aircraft.
AU	Cancels outdoor training	Direct students inside for training.
42 OSS/OSAX	Safety problems	May require divert to alternate bases without adequate maintenance support.
42 SFS	Threat to Military Working Dogs (MWDs)	Minimize utilization via coordination with the kennel master/trainer and at the discretion of operations superintendent/officer.
42 SFS	Threat to personnel training	Direct students inside hardened facilities Possibly shut down CVI/gates at discretion of operations superintendent/officer
42 SFS	Threat to response vehicles	Possibly parked under hardened area parking structure until dispatched for emergency Ensure snow tires or chains are installed on vehicles
42 CES	Any Amount: Hazardous road/runway conditions $\geq$ 2 inches in 12 Hours Roadways dangerous	1. Plan alternate response routes 2. Decrease response speeds
BLIZZARD CONDITIONS (VISIBILITY ≤ 1/4 MILE WITH SNOW AND WIND ≥ 30 KNOTS) WARNING		
CUSTOMER	**MISSION IMPACT**	**PROTECTIVE MEASURES**
908 MXG, 357 AS, CAP-USAF	Ice/snow on aircraft/runway	Cancel missions. Hangar aircraft.
AU	Cancels outdoor training	Direct students inside for training
42 FSS	Threat to personnel	Notify all subordinate units Shutdown outdoor activities
42 OSS/ALL	Safety problems	May require divert to alternate bases without adequate maintenance support.

42 SFS	1. May affect access to controlled and restricted areas 2. Abandoned/illegally parked vehicles may disrupt parking and traffic flow	1. Coordinate entry/exit procedures with the snow control center for snow removal. Remove and replace ropes and doughnuts as needed. 2. Remove vehicles and control parking as conditions dictate.
42 CES	Any Amount: Hazardous road/runway conditions ≥ 2 inches in 12 Hours Roadways dangerous	1. Plan alternate response routes 2. Decrease response speeds
TEMPERATURE < 20 ºF ADVISORY		
CUSTOMER	**MISSION IMPACT**	**PROTECTIVE MEASURES**
ALL	Personnel in danger of frostbite	Advise personnel of the potential for frostbite
42 CES	Increased unscheduled maintenance, damage to frozen pipes, heaters, buildings.	1. Reschedule routine work. 2. Repair pipes, buildings. 3. Restore heat
42 OSS/OSAX	Equipment in danger of freezing	Secure Equipment in heated areas.
AU	Cancels outdoor training	Direct students inside for training

357 AIRLIFT SQUADRON WEATHER SENSITIVITIES (C-130)	
CRITERIA	**GO/NO-GO THRESHOLD**
Takeoff CIG / VIS / RVR	200 feet / ½ mile / 1,600 ft RVR
Landing CIG / VIS / RVR	200 feet / ½ mile / 2,400 ft RVR
Formation Takeoff CIG / VIS / RVR	200 feet / 1 mile / 5,000 ft RVR
VFR Operations CIG / VIS	1500 feet / 3 miles
Tailwind Component	10 knots (5 knots for assault strip)
Crosswind Component	35 Knots
Winds Prevailing	Performance Based
Winds (for maintenance)	20 knots - Inspects the rudder booster assembly and associated frames, levers, bellcrank, and links for cracks using 10X magnifier.
Winds (for maintenance)	40 knots - Inspects the rudder booster assembly and associated frames, levers, bellcrank, and links for cracks using 10X magnifier.
Icing	Flight into areas of forecast or reported severe icing prohibited.
Turbulence	Avoid areas of known or forecast moderate mountain wave and all severe turbulence. Flight into areas of forecast or reported severe turbulence prohibited.

Lightning/Thunderstorms	Avoid thunderstorms by 20 Nautical Miles (NM) at or above flight level 230, by 10 NM below flight level 230, and by 5 NM for tactical / low-level operations, provided the outside air temperature is at or above 0 degrees Celsius.
Freezing Rain	Do not takeoff into areas of freezing rain. Do not takeoff into freezing drizzle except when aircraft has been de-iced/anti-iced. Maxwell does not have de-icing equipment.
Low-Level Ceiling/Vis Day Visual	1500 feet / 3 miles
Low-Level Ceiling/Vis Instrument	No Minimum
Low-Level NVG Ceiling/Vis	1500 feet / 3 miles
Drop – Sandbag Ceiling/Vis/Wind	VMC at drop altitude (approximately 1500 feet) / 3 miles / 25 knots
Drop – Heavy Equipment Ceiling/Vis/Wind	VMC at drop altitude (approximately 1500 feet) / 3 miles / 17 knots
Drop – High Velocity CDS Ceiling/Vis/Wind	VMC at drop altitude (approximately 1500 feet) / 3 miles / NONE
Simulated Engine Failure Limitations	Day - Day IMC - at or above circling minimums (600/2 if none published) Night – 1000 feet / 2 miles
Touch and Go Landing Limitations	Instructor Pilot - 300 feet / ¾ mile / 4000 ft RVR Certified AC – 600 feet / 2 miles
No-Flap Landing Limitations	Day - Day IMC - at or above circling minimums Night – 1000 feet / 2 miles
CAP – USAF WEATHER SENSITIVITIES (GA-8, C-172, and C-182)	
CRITERIA	**GO/NO-GO THRESHOLD**
Takeoff CIG / VIS	200 feet / ½ mile
Landing CIG / VIS / RVR	200 feet / ½ mile / 2400 ft RVR
Tailwind Component	Pilot discretion (normally 10 knots)
Crosswind	15 Knots
Winds Prevailing	30 Knots
Icing	No flying into areas of forecast or reported freezing rain or icing.
Turbulence	Flight operations are prohibited if severe turbulence (for CAT I aircraft) is known or reported. (Moderate for CAT II aircraft)
Lightning/Thunderstorms	Avoid thunderstorms/lightning by 5 NM.

Attachment 7

WEATHER WATCH/WARNING/ADVISORY NOTIFICATION CHAIN

A7.1. Resource Protection Notification Chain. Due to limited staffing and the time-critical nature of this information, 26 OWS personnel cannot individually notify every agency requiring weather watches, warnings, and advisories; hence, the application of a notification chain that exploits installation command and communications channels. Procedures developed to this end ensure weather personnel do not spend more time communicating than monitoring weather conditions. All units receiving these weather products must be involved in a continuous program of evaluation and improvement of the weather dissemination system, including inter-unit dissemination. Agencies must make certain that weather dissemination procedures ensure those needing information receive it. Individual commanders of units in need of weather information are responsible for having their units listed in the notification chain that follows.

Figure A7.1. 26 OWS to Maxwell AFB and Lake Martin Notification Chain.

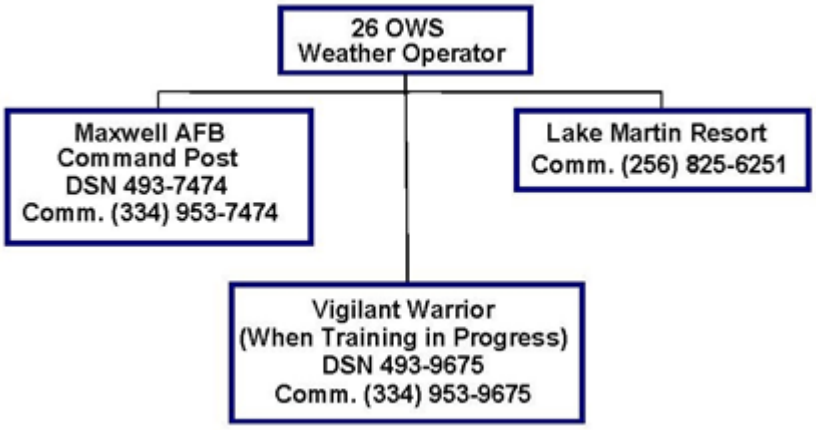
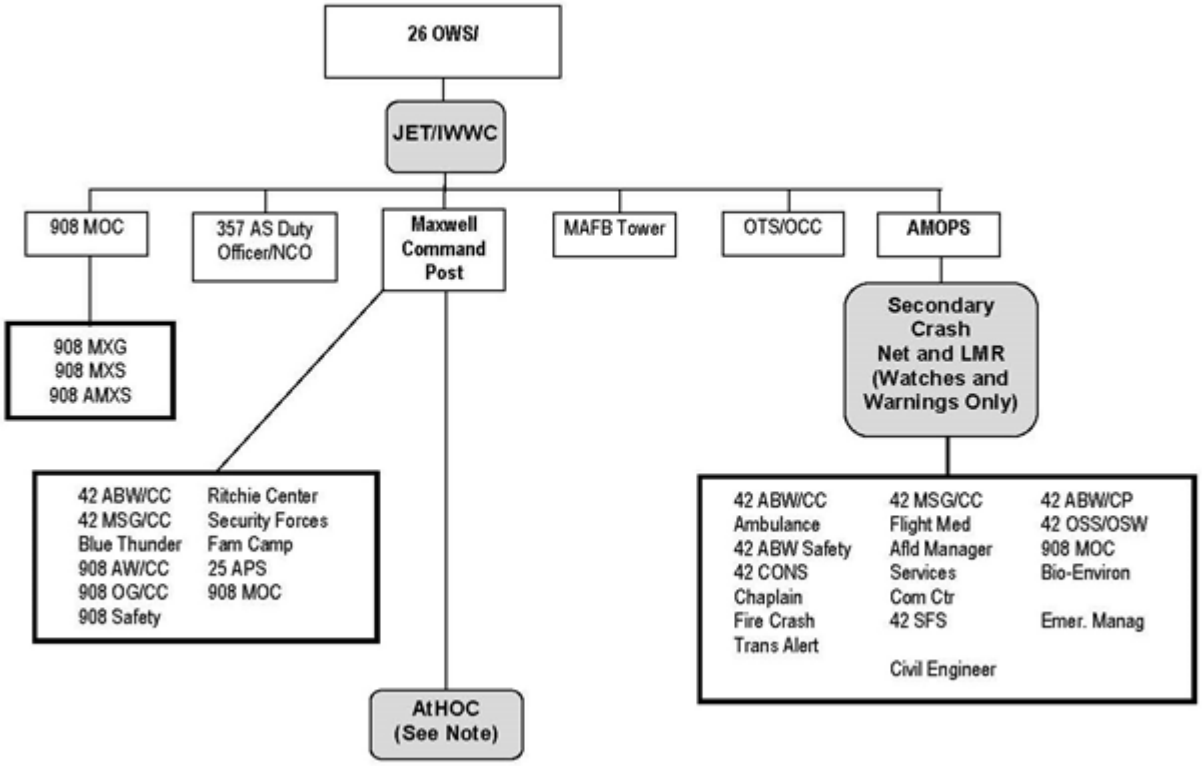
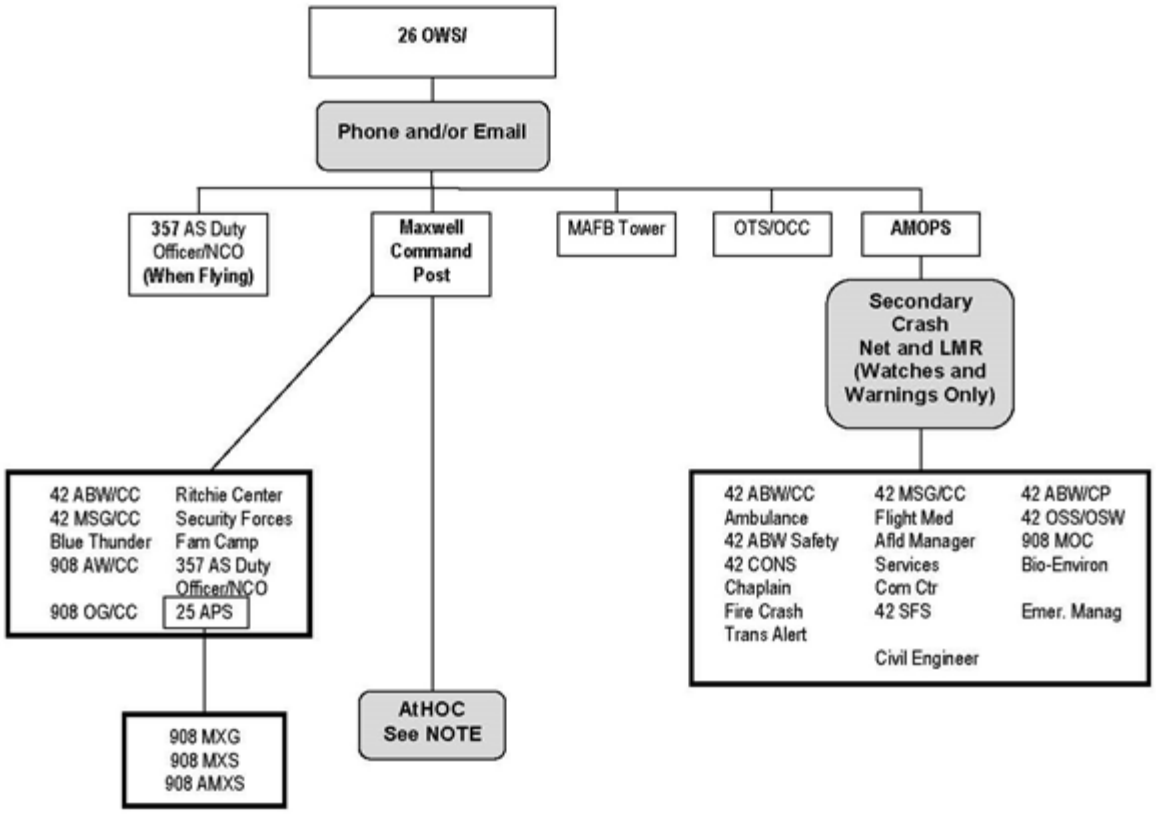


Figure A7.2. Weather Warning/Watch/Advisory Notification List.



NOTE: AtHOC includes Giant Voice, automated phone calls, and computer pop-up notification.

Figure A7.3. Backup Weather Warning/Watch/Advisory Notification List.



NOTE: AtHOC includes Giant Voice, automated phone calls, and computer pop-up notification.